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LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 1.

JANUARY.

1897.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.*

CHAS. F. PIDGIN, *First Clerk.*

FRANK H. DROWN, *Second Clerk.*

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1897-
ANNUAL PUBLICATIONS (1870-1895)

OF THE

BUREAU OF STATISTICS OF LABOR.

[Those publications which are in print, at present, have the postage on same indicated, and will be forwarded by mail, on receipt of postage stated, or they will be sent by express at the expense of the recipient. Those publications, for which no postage rates are given, are *out of print*. All of these volumes, however, may be found and consulted in town and city public libraries. They can also be found in the Public Document Series which is sent to every city and town. In this Series, the Bureau Report is No. 15, and the Annual Statistics of Manufactures is No. 36. Only the annual issues of the Bureau, are included in accompanying list, the Census volumes for 1875, 1880, 1885, and 1895, and special reports, being omitted. They can be found in the city and town public libraries.]

ANNUAL REPORTS OF THE BUREAU.

FIRST ANNUAL REPORT. 1870. pp. 423.

Not divided into Parts. The following subjects were considered: Labor and its attendant legislation; cotton manufacturing; agricultural labor; labor and legislation in Massachusetts; origin of labor movement; origin and development of industrial questions; factory system; testimony, at hearings before the Bureau; children in factories, their employment and schooling; the wage system and its results; homes of low-paid laborers in the city of Boston; homes of the middle class; intemperance; together with an appendix containing replies to blanks, extracts therefrom, testimony and remarks, with statistical tables; summary of laws relating to labor, and catalogue of books upon labor.

SECOND ANNUAL REPORT. 1871. pp. 655.

Not divided into Parts. The following subjects were considered: Combination; combination by guilds; combinations by trades-unions; strikes; strikes in Massachusetts; wages and earnings in agriculture, fisheries, land and water travel and transportation, domestic labor and women's work, industrial occupations, and mechanical trades; cost of living; co-operation; work and home life of factory operatives, their earnings, etc.; children in factories; half-time schools; hours of factory labor; facts bearing on the ten-hour argument; hours of labor in Europe; tenement houses, or homes of low-paid laborers in Boston; poverty; intemperance; hours of labor; statements and experiences of workmen; friendly societies.

THIRD ANNUAL REPORT. 1872. pp. 598.

Not divided into Parts. The following subjects were considered: Wages and earnings in agriculture, commercial, industrial, and mechanical occupations, and domestic labor and women's work (see Report for 1871); hours of labor; cost of living; workmen's statistics; savings banks; condition of operatives in factory towns; Chinese labor; truck system; accidents; strikes; homes of the working classes; schools for factory children; education and half-time schools; purchasing power of wages.

FOURTH ANNUAL REPORT. 1873. pp. 522.

Not divided into Parts. The following subjects were considered: Wages and earnings; cost of living; savings and savings banks; ownership of property; co-operation; education; poverty; hours of labor.

FIFTH ANNUAL REPORT. 1874. pp. 292.

Part I.—Education and employment of young persons and children, and digest of American and European laws relative to the subject.

Part II.—Relative to professional men.

Part III.—The sanitary condition of working people in their homes and employments.

Part IV.—Comparative rates of wages and hours of labor in Massachusetts and foreign countries.

Part V.—Condition of textile fabric manufactories in Massachusetts, and digest of laws relative to machinery and sanitary matters.

Part VI.—Prices of provisions, clothing, rent, etc., in Massachusetts and Europe; purchasing power of money.

Part VII.—Savings Banks.

Part VIII.—Statistics relating to Massachusetts from the U. S. Census of 1870.

Increase in wages in cotton, woollen, and worsted mills; 1861 compared with 1873.

Comparative table, showing cost of groceries, provisions, and articles of clothing and dry goods, in 1861 and 1873.

Cost of living table. Massachusetts and foreign countries.

Homes for women.

SIXTH ANNUAL REPORT. 1875. pp. 513.

Part I.—The education of working children.

Part II.—Special effects of certain forms of employment upon female health.

Part III.—Factory legislation.

Part IV.—Condition of workmen's families.

Part V.—Co-operation.

ENTH ANNUAL REPORT. 1876. pp. 379.

Part I.—Wage receivers. (71,339 "individual" returns.)

Part II.—Salary receivers. (9,554 "individual" returns.)

Appendix.—History of the Bureau of Statistics of Labor, and of labor legislation in Massachusetts from 1833 to 1876.

EIGHTH ANNUAL REPORT. 1877. pp. 303.

Part I.—Industrial arbitration and conciliation in England and Massachusetts.

Part II.—Co-operation in Massachusetts.

Part III.—Motive power in Massachusetts; or, the labor of the sun.

Part IV.—The afflicted classes. Blind, deaf, dumb, idiotic, and insane.

Part V.—Pauperism and crime.

Part VI.—Massachusetts manufactories: persons employed in each story, and their means of escape in case of fire.

NINTH ANNUAL REPORT. 1878. pp. 267.

Part I.—Comparative condition of manufactures and labor, 1875 and 1877.

Part II.—The education and labor of the young; the half-time system.

Part III.—The growth of Massachusetts manufactures.

Part IV.—The relative importance of private establishments and corporations in manufacturing industries.

Part V.—Conjugal condition, nativities, and ages of married women and mothers.

Part VI.—Nativities, ages, and illiteracy of farmers, farm-laborers, skilled workmen in manufactures and mechanical industries, and unskilled laborers.

TENTH ANNUAL REPORT. 1879. pp. 193.

Introduction.—Expenses of the Bureau.

The insolvency of workingmen.

Weekly payments.

Labor legislation.

Foreign statistics and opinions.

School savings banks.

Bureaus of statistics.

Part I.—The unemployed in Massachusetts. June and November, 1878.

Part II.—Convict labor.

Part III.—Wages and prices, 1860, 1872, and 1878.

Part IV.—Testimony of workingmen.

Part V.—The hours of labor.

Part VI.—Statistics of drunkenness and liquor selling under prohibitory and license legislation, 1874 and 1877.

ELEVENTH ANNUAL REPORT. 1880. pp. 305.

Part I.—Strikes in Massachusetts.

Part II.—Convict labor in the United States.

Part III.—Statistics of crime. 1860 to 1879.

Part IV.—Divorces in Massachusetts. 1860 to 1878.

Part V.—Social life of workingmen.

TWELFTH ANNUAL REPORT. 1881. pp. 545.

Part I.—Industrial arbitration and conciliation.

Part II.—Statistics of drunkenness and liquor selling. 1870 to 1879.

Part III.—Uniform hours of labor.

Part IV.—Influence of intemperance upon crime.

THIRTEENTH ANNUAL REPORT. 1882. pp. 473.

Part I.—The Canadian French in New England.

Part II.—Citizenship.

Part III.—Fall River, Lowell, and Lawrence.

Part IV.—Wages, prices, and profits. 1860, 1872, 1878, and 1881.

FOURTEENTH ANNUAL REPORT. 1883. pp. 412.

Part I.—Employers' liability for personal injuries to their employees.

Part II.—Time and wages.

Part III.—Profits and earnings: 2,440 establishments.

Part IV.—Early factory labor in New England.

FIFTEENTH ANNUAL REPORT. 1884. pp. 484.

Part I.—The working girls of Boston

Part II.—Comparative wages: 1883. Massachusetts and Great Britain.

Part III.—Comparative wages: 1860-1883. Massachusetts and Great Britain.

Part IV.—Comparative prices and cost of living: 1860-1883. Massachusetts and Great Britain.

SIXTEENTH ANNUAL REPORT. 1885. pp. 551.

Part I.—Pullman.

Part II.—Sunday labor.

Part III.—Comparative wages and prices: 1860-1883. Massachusetts and Great Britain.

Part IV.—Historical review of wages and prices: 1752-1880.

Part V.—Health statistics of female college graduates.

SEVENTEENTH ANNUAL REPORT. 1886. pp. 411.

Memorial.—Henry Kemble Oliver.

Part I.—Co-operative distribution in Great Britain.

Part II.—Profit sharing.

Part III.—Food consumption. Quantities, costs, and nutrients of food-materials.

Part IV.—Art in industry.

EIGHTEENTH ANNUAL REPORT. 1887. pp. 205.

The unemployed.

NINETEENTH ANNUAL REPORT. 1888. pp. 239.

Part I.—Strikes and lockouts.

Part II.—Citizens and aliens.

TWENTIETH ANNUAL REPORT. 1889. pp. 634.

- 30 — Part I.—Relation of wages to the cost of production. Postage 6 cents
79 — Part II.—Markets, transportation, imports, exports, and competition, Postage 3 cents
50 — Part III.—Condition of employés, Postage 5 cents
89 — Part IV.—The growth of manufactures, Postage 3 cents
51 — Part V.—Classified weekly wages, Postage 4 cents
131 — Part VI.—Daily working time,
69 — Part VII.—Women in industry.
69 — Part VIII.—Index to reports: 1870-1889. Twenty years, Postage 3 cents.

TWENTY-FIRST ANNUAL REPORT. 1890. pp. 661.

- Part I.—Labor laws of Massachusetts.
— Part II.—Population of Massachusetts. 1890. From the Eleventh United States Census.
12 — Part III.—Abandoned farms in Massachusetts.
5 — Part IV.—Net profits in manufacturing industries.

TWENTY-SECOND ANNUAL REPORT. 1891. pp. 606. Postage 18 cents.

A Tenement House Census of Boston.

- 1 — Section I.—Tenements, rooms, and rents.

TWENTY-THIRD ANNUAL REPORT. 1892. pp. 479. Postage 15 cents.

A Tenement House Census of Boston.

- 7 — Part I. Section II.—Sanitary condition of tenements.
23 — Part II. Section III.—Place of birth, occupations, etc., of residents in tenement houses.

TWENTY-FOURTH ANNUAL REPORT. 1893. pp. 326.

- 44 — Part I.—Unemployment.
50 — Part II.—Labor chronology—1893. Postage 3 cents.

TWENTY-FIFTH ANNUAL REPORT. 1894. pp. 356. Postage 13 cents.

- 75 — Part I.—Compensation in certain occupations of graduates of colleges for women, Postage 3 cents.
240 — Part II.—The distribution of wealth—probates, Postage 8 cents.
157 — Part III.—Labor chronology—1894, Postage 3 cents.

TWENTY-SIXTH ANNUAL REPORT. 1895. pp. 767. Postage 23 cents.

- 23 — Part I.—Relation of the liquor traffic to pauperism, crime, and insanity, Postage 13 cents.
111 — Part II.—Graded weekly wages, Postage 9 cents.
250 — Part III.—Labor chronology—1895, Postage 3 cents.

275 — I/96

250 — II/96 ANNUAL STATISTICS OF MANUFACTURES.

350 — III/96

{ 1886—First Annual Report } Published in one volume.

{ 1887—Second Annual Report }

1888—Third Annual Report.

1889—Fourth Annual Report, Postage 12 cents.

1890—Fifth Annual Report, Postage 13 cents.

1891—Sixth Annual Report, Postage 11 cents.

1892—Seventh Annual Report, Postage 16 cents.

1893—Eighth Annual Report, Postage 15 cents.

1894—Ninth Annual Report, Postage 11 cents.

1895—Tenth Annual Report, Postage 11 cents.

MASSACHUSETTS LABOR BULLETIN.

No. 1.

JANUARY.

1897.

PAY OF CITY LABORERS.

Many requests for information concerning the pay of city laborers having been received by the Bureau, an original investigation was undertaken to secure the facts desired. A letter was prepared and sent to each city auditor. He was requested to name the different departments of labor under control of his city, specify the different branches of labor, and give the pay per day for laborers in each kind of work. Many cities responded promptly and fully, but, in the case of several, a long correspondence became necessary before the desired information could be procured in proper form for publication.

It was found that there is no uniformity of classification of city labor in the different municipalities. The various departments existing in the thirty-two cities in the State are as follows:—

Bridge.	Park and Public Grounds.	Sewer.
Cemetery.	Paving.	Street.
Health.	Public Buildings.	Water.
Lamp.	Public Property and Works.	Wires.

In no one city do all of these twelve departments exist, Boston having but seven, while some cities have but one or two. In many cities the term “Highway” is used instead of “Street,” while other cities include paving, health, sewer, etc., under “Highway” or “Street.”

No attempt was made to learn the number of laborers in each department, the information supplied covering only the pay per day. When different rates were paid in the same department, the highest, lowest, and intermediate rates are given. When laborers were paid on some other basis than by the day, the facts are given in a separate column of the tables.

We present, first, a table showing the departments of city labor, the cities having such departments being arranged alphabetically thereunder, with the rates of pay opposite the name of each city.

Departments of City Labor: By Cities.

DEPARTMENTS OF CITY LABOR, AND NAMES OF CITIES.	Pay per Day	Remarks		
Bridge.				
Boston (carpenters and painters),	\$2.50	-	-	-
Cambridge (carpenters and painters),	2.50	-	-	-
North Adams,	1.50	-	-	-
Cemetery.				
Fall River,	2.00	Half holiday, Saturday, with full pay.		
Lawrence,	1.75, 2.00	-	-	-
Health.				
Brockton,	2.00	-	-	-
Cambridge,	2.00	-	-	-
Chelsea,	-	Done by contract.		
Fitchburg,	-	Done by contract.		
Gloucester,	-	Done by contract.		
Holyoke,	2.00	-	-	-
Lawrence,	2.00	-	-	-
Lowell,	1.90	-	-	-
Lynn,	2.00	-	-	-
Malden,	2.00	-	-	-
Medford,	2.00	-	-	-
Newburyport,	-	Paid at the rate of \$0.20 per hour.		
Newton,	-	Done by contract.		
North Adams,	1.50	-	-	-
Salem,	2.00	-	-	-
Somerville,	2.00	-	-	-
Springfield (drivers, laborers, and scavengers),	1.75	-	-	-
Taunton,	1.75	-	-	-
Waltham,	2.00	-	-	-
Worcester (one man employed),	1.50	-	-	-
Lamp.				
Boston (lamplighters),	2.00	-	-	-
Cambridge,	2.00	-	-	-
Fitchburg,	1.75	-	-	-
Holyoke,	2.00	-	-	-
Lowell,	1.75	-	-	-
Newton,	-	Done by contract.		
Northampton,	-	Done by contract.		
Salem,	2.00	-	-	-
Taunton,	1.75	-	-	-
Worcester:				
Care and lighting of gas lamps,	-	Paid at the rate of \$0.01¼ per light per day.		
Care and lighting of oil lamps,	-	Paid at the rate of \$0.02½ per light per day.		
Repairer,	2.00	-	-	-
Park and Public Grounds.				
Boston (laborers),	2.00	-	-	-
Cambridge,	2.00	-	-	-
Lawrence,	1.50, 1.75, 2.00	-	-	-
Lowell,	1.75	-	-	-
New Bedford:				
Keepers,	2.00	-	-	-
Laborers,	1.50 to 2.00	-	-	-
Newburyport,	-	Paid at the rate of \$0.20 per hour.		
Salem,	2.00	-	-	-
Somerville,	2.00	-	-	-
Taunton,	1.75	-	-	-

Departments of City Labor: By Cities — Continued.

DEPARTMENTS OF CITY LABOR, AND NAMES OF CITIES.	Pay per Day	Remarks			
Paving.					
Beverly (included in highway),	-	-	-	-	-
Boston (included in street),	-	-	-	-	-
Cambridge,	\$2.00	-	-	-	-
Chelsea,	1.75, 2.00, 2.50	-	-	-	-
Fall River (included in street),	-	-	-	-	-
Fitchburg,	1.00 to 2.50	-	-	-	-
Gloucester (included in highway),	-	-	-	-	-
Holyoke,	2.00	-	-	-	-
Lawrence:					
Foremen, inspectors, and pavers,	2.50 to 3.50	-	-	-	-
Laborers,	2.00	-	-	-	-
Lowell:					
Laborers,	1.75	-	-	-	-
Pavers,	3.00	-	-	-	-
Lynn,	-	Done by contract.			
Malden (included in highway),	-	-	-	-	-
Marlborough (included in highway),	-	-	-	-	-
Medford,	2.00	-	-	-	-
New Bedford,	1.50 to 2.00	-	-	-	-
Newburyport,	-	Paid at the rate of \$0.20 per hour.			
Newton,	3.00	-	-	-	-
North Adams (sidewalks),	1.50	-	-	-	-
Pittsfield (sidewalks),	1.75 to 2.50	-	-	-	-
Quincy,	2.00	-	-	-	-
Salem,	2.00	-	-	-	-
Somerville:					
Foremen,	4.00	-	-	-	-
Laborers,	2.00 to 2.50	-	-	-	-
Stone cutters,	4.50	-	-	-	-
Springfield,	4.50 to 5.50	-	-	-	-
Taunton,	1.75	-	-	-	-
Waltham (included in street),	-	-	-	-	-
Worcester:					
Pavers,	4.50	-	-	-	-
Rammers, etc.,	2.70	-	-	-	-
Public Buildings.					
Chelsea (including care of public grounds and school buildings):					
Carpenters,	2.50	-	-	-	-
Laborers,	1.75	-	-	-	-
Fitchburg,	-	Done by contract.			
Lowell:					
Carpenters,	2.50	-	-	-	-
Laborers,	1.75	-	-	-	-
Painters,	2.25	-	-	-	-
Lynn (repairs),	-	Done by contract.			
New Bedford (janitors),	2.50	-	-	-	-
Newton,	-	Done by contract.			
Pittsfield:					
Janitor, City Hall,	-	\$12.00 per week.			
Janitor, Fire department building,	-	\$45.00 per month.			
Waltham (carpenters),	2.25 to 2.75	-	-	-	-
Worcester:					
Foreman,	2.50	-	-	-	-
Laborers,	2.25	-	-	-	-

Departments of City Labor: By Cities—Continued.

DEPARTMENTS OF CITY LABOR, AND NAMES OF CITIES.	Pay per Day	Remarks		
Public Property and Works.				
Brockton (one man employed),	\$2.75	-	-	-
Lawrence (including carpenters),	2.00, 2.25, 2.50	-	-	-
Lynn (carpenters),	2.25 to 2.75	-	-	-
Quincy,	1.75	-	-	-
Salem,	2.00	-	-	-
Sewer.				
Boston (included in street),	-	-	-	-
Brockton,	2.00	-	-	-
Cambridge,	2.00	-	-	-
Chelsea,	1.75, 2.00, 2.50	-	-	-
Chicopee,	1.50	-	-	-
Everett,	1.75	-	-	-
Fall River (included in street),	-	-	-	-
Fitchburg (included in street),	-	-	-	-
Gloucester,	-	Done by contract.		
Haverhill (included in street),	-	-	-	-
Holyoke,	2.00	-	-	-
Lawrence,	2.00	-	-	-
Lowell,	2.00	-	-	-
Lynn,	-	Done by contract.		
Malden (included in street),	-	-	-	-
Marlborough,	1.50 to 3.00	-	-	-
Medford,	2.00	-	-	-
New Bedford,	1.50 to 2.00	-	-	-
Newburyport,	-	Paid at the rate of \$0.20 per hour.		
Newton,	1.75	-	-	-
North Adams,	1.50	-	-	-
Pittsfield (flushing):				
Foreman,	2.00	-	-	-
Laborers,	1.75	-	-	-
Quincy,	1.75	-	-	-
Salem,	2.00	-	-	-
Somerville:				
Foremen,	2.75	-	-	-
Inspectors,	2.50 to 5.00	-	-	-
Laborers,	2.00	-	-	-
Springfield:				
Laborers,	1.75	-	-	-
Masons,	5.00 to 6.50	-	-	-
Taunton,	1.75	-	-	-
Waltham:				
Laborers,	1.50	-	-	-
Pipe layers,	2.25	-	-	-
Woburn,	1.75	-	-	-
Worcester:				
Expert foreman,	3.75, 4.00	-	-	-
Laborers,	1.75, 1.85	-	-	-
Mason,	3.50	-	-	-
Street.				
Beverly (including paving),	2.00	-	-	-
Boston:				
Ferry division,	2.10	-	-	-
Paving division,	2.00, 2.10	-	-	-
Sanitary division,	2.00	-	-	-
Sewer division,	2.00, 2.25	-	-	-
Street cleaning division,	{ 2.00, 2.02, 2.10, } 2.25	-	-	-

Departments of City Labor: By Cities — Continued.

DEPARTMENTS OF CITY LABOR, AND NAMES OF CITIES.	Pay per Day	Remarks		
Street — Con.				
Brockton (including care of lamps),	\$2.00	-	-	-
Cambridge,	2.00	-	-	-
Chelsea,	1.75, 2.00, 2.50	-	-	-
Chicopee,	1.50	-	-	-
Everett,	2.00	-	-	-
Fall River (including paving, scavenger service and sewer),	2.00	Half holiday, Saturday, with full pay.		
Fitchburg (including sewer and street construc- tion),	1.00, 1.50, 1.75, 2.00, 2.25, 2.50	-	-	-
Gloucester (including paving),	2.00	-	-	-
Haverhill (including sewer),	1.75, 2.00	-	-	-
Holyoke,	2.00	-	-	-
Lawrence (sidewalks),	2.00	-	-	-
Lowell (including roads and bridges),	1.75	-	-	-
Lynn,	2.00, 2.50, 3.00	-	-	-
Malden (including paving, sewer, etc.),	2.00	-	-	-
Marlborough (including paving):				
Foremen,	2.50, 3.00	-	-	-
Laborers,	1.50, 1.75, 2.00	-	-	-
Man and double team,	4.48	-	-	-
Man and single team,	3.24	-	-	-
Pavers,	3.00	-	-	-
Medford,	2.00	-	-	-
New Bedford (scavengers),	1.80 to 2.00	-	-	-
Newburyport,	-	Paid at the rate of \$0.20 per hour.		
Newton (including teamsters),	1.75, 2.00	-	-	-
North Adams,	1.50	-	-	-
Northampton,	1.75	-	-	-
Pittsfield,	1.75	-	-	-
Quincy:				
Laborers,	1.75	-	-	-
Stone crushers,	2.00	-	-	-
Salem,	2.00	-	-	-
Somerville:				
Foremen,	2.50, 3.00	-	-	-
Laborers,	2.00	-	-	-
Springfield:				
Drivers,	1.92	-	-	-
Foremen,	2.50 to 3.00	-	-	-
Laborers,	1.50 to 1.75	-	-	-
Taunton,	1.75	-	-	-
Waltham (including paving):				
Drivers,	1.90 to 2.05	-	-	-
Laborers,	1.80	-	-	-
Pavers,	2.00 to 2.50	-	-	-
Woburn,	2.00	-	-	-
Worcester:				
Blacksmith,	2.75	-	-	-
Foremen,	2.50	-	-	-
Laborers,	1.65 to 1.85	-	-	-
Wheelwright, etc.,	3.00	-	-	-
Water.				
Beverly,	2.00	-	-	-
Boston,	2.00, 2.10	-	-	-
Brockton,	2.00	-	-	-
Cambridge,	2.00	-	-	-
Chelsea,	1.75, 2.00, 2.50	-	-	-

Departments of City Labor : By Cities — Concluded.

DEPARTMENTS OF CITY LABOR, AND NAMES OF CITIES.	Pay per Day	Remarks		
Water—Con.				
Chicopee,	\$1.50	-	-	-
Everett,	2.00	-	-	-
Fall River,	2.00	Half holiday, Saturday, with full pay.		
Fitchburg,	{ 1.50, 1.75, 2.00, 2.25, 2.50, 3.00 }	-	-	-
Gloucester,	1.75	-	-	-
Holyoke,	2.00	-	-	-
Lawrence,	2.00	-	-	-
Lowell,	1.80	-	-	-
Lynn,	2.00, 2.25	-	-	-
Malden,	2.00	-	-	-
Marlborough,	1.50 to 3.00	-	-	-
Medford,	2.00	-	-	-
New Bedford (laborers),	1.75 to 2.50	-	-	-
Newburyport,	-	Paid at the rate of \$0.20 per hour.		
Newton,	1.75	-	-	-
North Adams,	1.50	-	-	-
Pittsfield,	1.75	-	-	-
Quincy,	1.75	-	-	-
Salem,	2.00	-	-	-
Somerville:				
Foremen,	2.25, 3.00	-	-	-
Laborers,	1.75, 2.00	-	-	-
Springfield:				
Janitors,	1.50	-	-	-
Laborers,	1.50 to 1.75	-	-	-
Taunton,	1.75	-	-	-
Waltham:				
Calkers,	2.25	-	-	-
Laborers,	1.80	-	-	-
Woburn,	2.00 to 2.50	-	-	-
Worcester:				
Calkers,	2.00, 2.25	-	-	-
Expert foremen,	3.25	-	-	-
Laborers,	1.65, 1.75	-	-	-
Wires.				
Boston:				
Inspector,	3.50	-	-	-
Linemen,	2.00, 2.50, 3.50	-	-	-
Cambridge,	2.00	-	-	-
Fall River,	2.00	-	-	-
Gloucester,	-	Done by contract.		
Lynn,	2.00 to 2.50	-	-	-
Marlborough,	-	Done by contract.		
Newton,	1.75 to 3.00	-	-	-
Salem (electrical department),	2.00	-	-	-
Somerville (electric lines),	2.25	-	-	-
Taunton,	1.75	-	-	-
Waltham,	2.00 to 2.25	-	-	-
Worcester (occasional laborers),	-	Paid at the rate of \$0.20 and \$0.30 per hour.		

The facts contained in the preceding table may be more easily compared in the condensation which follows :

DEPARTMENTS OF CITY LABOR.	Number of Cities having Specified Departments	PAY PER DAY	
		Highest	Lowest
Bridge,	3	\$2.50	\$1.50
Cemetery,	2	2.00	1.75
Health,	20	2.00	1.50
Lamp,	10	2.00	1.75
Park and public grounds,	9	2.00	1.50
Paving,	19	*5.50	1.00
Public buildings,	9	2.75	1.75
Public property and works,	5	2.75	1.75
Sewer,	25	*6.50	1.50
Street,	32	*4.48	1.00
Water,	30	*3.25	1.50
Wires,	12	3.50	1.75

The "highest" rates marked with an asterisk (*) require some explanation.

The \$5.50 rate in the Paving department was paid in Springfield, but the particular duty performed was not stated. The \$6.50 rate in the Sewer department was paid to masons in Springfield. The \$4.48 rate in the Street department was paid for man and double team in Marlborough. The \$3.25 rate in the Water department was paid to expert foremen in Worcester.

The second table presents identically the same information as is contained in the first, but under a different arrangement, the cities being given alphabetically with the different departments classified alphabetically thereunder.

Cities: By Departments of City Labor.

NAMES OF CITIES, AND DEPARTMENTS OF CITY LABOR.	Pay per Day	Remarks		
BEVERLY.				
Highway (paving),	\$2.00	-	-	-
Water,	2.00	-	-	-
BOSTON.				
Bridge (carpenters and painters),	2.50	-	-	-
Lamp (lamplighters),	2.00	-	-	-
Park (laborers),	2.00	-	-	-
Public grounds,	2.00	-	-	-
Street :				
Ferry division,	2.10	-	-	-
Paving division,	2.00, 2.10	-	-	-
Sanitary division,	2.00	-	-	-
Sewer division,	2.00, 2.25	-	-	-
Street cleaning division,	2.00, 2.02, 2.10, 2.25	}	-	-
Water,	2.00, 2.10		-	-
Wires :				
Inspector,	3.50	-	-	-
Linemen,	2.00, 2.50, 3.50	-	-	-

Cities: By Departments of City Labor — Continued.

Names of Cities, and Departments of City Labor.	Pay per Day	Remarks
BROCKTON.		
Health,	\$2.00	- - -
Highway (including care of lamps),	2.00	- - -
Public property (one man employed),	2.75	- - -
Sewer,	2.00	- - -
Water,	2.00	- - -
CAMBRIDGE.		
Different departments,	2.00, 2.50	- - -
CHELSEA.		
Health,	-	Done by contract.
Highway,	1.75, 2.00, 2.50	- - -
Paving,	1.75, 2.00, 2.50	- - -
Public buildings and grounds (including care of school buildings):		
Carpenters,	2.50	- - -
Laborers,	1.75	- - -
Sewer,	1.75, 2.00, 2.50	- - -
Street,	1.75, 2.00, 2.50	- - -
Water,	1.75, 2.00, 2.50	- - -
CHICOPEE.		
Highway,	1.50	- - -
Sewer,	1.50	- - -
Water,	1.50	- - -
EVERETT.		
Sewer,	1.75	- - -
Street,	2.00	- - -
Water,	2.00	- - -
FALL RIVER.		
Cemetery,	2.00	Half holiday, Saturday, with full pay.
Street (including paving, scavenger service, and sewer),	2.00	Half holiday, Saturday, with full pay.
Water,	2.00	Half holiday, Saturday, with full pay.
Wires,	2.00	- - -
FITCHBURG.		
Health,	-	Done by contract.
Highway (including sewer and street construc- tion),	1.00, 1.50, 1.75, 2.00, 2.25, 2.50	{ - - -
Lamp (one man employed),	1.75	- - -
Paving,	1.00 to 2.50	- - -
Public buildings,	-	Done by contract.
Water,	1.50, 1.75, 2.00, 2.25, 2.50, 3.00	{ - - -
GLOUCESTER.		
Health,	-	Done by contract.
Highway (including paving),	2.00	- - -
Sewer,	-	Done by contract.
Water,	1.75	- - -
Wires,	-	Done by contract.
HAVERHILL.		
Highway (including sewer),	1.75, 2.00	- - -
HOLYOKE.		
Health,	2.00	- - -
Lamp,	2.00	- - -

Cities: By Departments of City Labor — Continued.

NAMES OF CITIES, AND DEPARTMENTS OF CITY LABOR.	Pay per Day	Remarks		
HOLYOKE — Con.				
Paving,	\$2.00	-	-	-
Sewer,	2.00	-	-	-
Street,	2.00	-	-	-
Water,	2.00	-	-	-
LAWRENCE.				
Cemetery,	1.75, 2.00	-	-	-
Health,	2.00	-	-	-
Park,	1.50, 1.75, 2.00	-	-	-
Paving:				
Foremen, inspectors, and pavers,	2.50 to 3.50	-	-	-
Laborers,	2.00	-	-	-
Public property (including carpenters),	2.00, 2.25, 2.50	-	-	-
Sewer,	2.00	-	-	-
Street (sidewalks),	2.00	-	-	-
Water,	2.00	-	-	-
LOWELL.				
Health,	1.90	-	-	-
Lamp,	1.75	-	-	-
Paving:				
Laborers,	1.75	-	-	-
Pavers,	3.00	-	-	-
Public buildings:				
Carpenters,	2.50	-	-	-
Laborers,	1.75	-	-	-
Painters,	2.25	-	-	-
Public grounds,	1.75	-	-	-
Roads and bridges,	1.75	-	-	-
Sewer,	2.00	-	-	-
Water,	1.80	-	-	-
LYNN.				
Health,	2.00	-	-	-
Highway,	2.00, 2.50, 3.00	-	-	-
Paving,	-	Done by contract.		
Public buildings (repairs),	-	Done by contract.		
School (carpenters),	2.25 to 2.75	-	-	-
Sewer,	-	Done by contract.		
Water,	2.00, 2.25	-	-	-
Wires,	2.00 to 2.50	-	-	-
MALDEN.				
Health,	2.00	-	-	-
Highway (including paving, sewer, etc.),	2.00	-	-	-
Water,	2.00	-	-	-
MARLBOROUGH.				
Highway (including paving):				
Foremen,	2.50, 3.00	-	-	-
Laborers,	1.50, 1.75, 2.00	-	-	-
Man and double team,	4.48	-	-	-
Man and single team,	3.24	-	-	-
Pavers,	3.00	-	-	-
Sewer,	1.50 to 3.00	-	-	-
Water,	1.50 to 3.00	-	-	-
Wires,	-	Done by contract.		

Cities: By Departments of City Labor—Continued.

NAMES OF CITIES, AND DEPARTMENTS OF CITY LABOR.	Pay per Day	Remarks			
MEDFORD.					
Health,	\$2.00	-	-	-	-
Highway,	2.00	-	-	-	-
Paving,	2.00	-	-	-	-
Sewer,	2.00	-	-	-	-
Water,	2.00	-	-	-	-
NEW BEDFORD.					
Park:					
Keepers,	2.00	-	-	-	-
Laborers,	1.50 to 2.00	-	-	-	-
Paving (pavers),	1.50 to 2.00	-	-	-	-
Public buildings (janitors),	2.50	-	-	-	-
Sewer,	1.50 to 2.00	-	-	-	-
Street (scavengers),	1.80 to 2.00	-	-	-	-
Water (laborers),	1.75 to 2.50	-	-	-	-
NEWBURYPORT.					
All laborers employed,	-	Paid at the rate of \$0.20 per hour.			
NEWTON.					
Health,	-	Done by contract.			
Highway (including teamsters),	1.75, 2.00	-	-	-	-
Lamp,	-	Done by contract.			
Paving,	3.00	-	-	-	-
Public buildings,	-	Done by contract.			
Sewer,	1.75	-	-	-	-
Water,	1.75	-	-	-	-
Wires,	1.75 to 3.00	-	-	-	-
NORTH ADAMS.					
Bridges, etc.,	1.50	-	-	-	-
Health,	1.50	-	-	-	-
Highway,	1.50	-	-	-	-
Paving (sidewalks),	1.50	-	-	-	-
Sewer,	1.50	-	-	-	-
Water,	1.50	-	-	-	-
NORTHAMPTON.					
Highway,	1.75	-	-	-	-
Lamp,	-	Done by contract.			
PITTSFIELD.					
Highway,	1.75	-	-	-	-
Paving (sidewalks),	1.75 to 2.50	-	-	-	-
Public buildings (janitors):					
City Hall,	-	\$12.00 per week.			
Fire department building,	-	\$45.00 per month.			
Sewer (flushing):					
Foreman,	2.00	-	-	-	-
Laborers,	1.75	-	-	-	-
Water,	1.75	-	-	-	-
QUINCY.					
Highway:					
Laborers,	1.75	-	-	-	-
Stone crushers,	2.00	-	-	-	-
Paving,	2.00	-	-	-	-
Public works,	1.75	-	-	-	-
Sewer,	1.75	-	-	-	-
Water,	1.75	-	-	-	-

Cities: By Departments of City Labor—Continued.

Names of Cities, and Departments of City Labor.	Pay per Day	Remarks		
SALEM.				
Health,	\$2.00	-	-	-
Lamp,	2.00	-	-	-
Park,	2.00	-	-	-
Paving,	2.00	-	-	-
Public property,	2.00	-	-	-
Sewer,	2.00	-	-	-
Street,	2.00	-	-	-
Water,	2.00	-	-	-
Wires (electrical department),	2.00	-	-	-
SOMERVILLE.				
Health,	2.00	-	-	-
Park,	2.00	-	-	-
Paving:				
Foremen,	4.00	-	-	-
Laborers,	2.00 to 2.50	-	-	-
Stone cutters,	4.50	-	-	-
Sewer:				
Foreman,	2.75	-	-	-
Inspectors,	2.50 to 5.00	-	-	-
Laborers,	2.00	-	-	-
Street:				
Foremen,	2.50, 3.00	-	-	-
Laborers,	2.00	-	-	-
Water:				
Foremen,	2.25, 3.00	-	-	-
Laborers,	1.75, 2.00	-	-	-
Wires (electric lines),	2.25	-	-	-
SPRINGFIELD.				
Health (drivers, laborers, and scavengers),	1.75	-	-	-
Highway:				
Drivers,	1.92	-	-	-
Foremen,	2.50 to 3.00	-	-	-
Laborers,	1.50 to 1.75	-	-	-
Paving (pavers),	4.50 to 5.50	-	-	-
Sewer:				
Laborers,	1.75	-	-	-
Masons,	5.00 to 6.50	-	-	-
Water:				
Janitors,	1.50	-	-	-
Laborers,	1.50 to 1.75	-	-	-
TAUNTON.				
All laborers employed,	1.75	-	-	-
WALTHAM.				
Health (collection of offal),	2.00	-	-	-
Public buildings (carpenters),	2.25 to 2.75	-	-	-
Sewer:				
Laborers,	1.80	-	-	-
Pipe layers,	2.25	-	-	-
Street (including paving):				
Drivers,	1.90 to 2.05	-	-	-
Laborers,	1.80	-	-	-
Pavers,	2.00 to 2.50	-	-	-
Water:				
Calkers,	2.25	-	-	-
Laborers,	1.80	-	-	-
Wires,	2.00 to 2.25	-	-	-

Cities: By Departments of City Labor — Concluded.

NAMES OF CITIES, AND DEPARTMENTS OF CITY LABOR.	Pay per Day	Remarks		
WOBURN.				
Highway,	\$2.00	-	-	-
Sewer,	1.75	-	-	-
Water,	2.00 to 2.50	-	-	-
WORCESTER.				
Health (one man employed),	1.50	-	-	-
Lamp:				
Care and lighting of gas lamps,	-	Paid at the rate of \$0.01¼ per light per day.		
Care and lighting of oil lamps,	-	Paid at the rate of \$0.02⅞ per light per day.		
Repairer,	2.00	-	-	-
Paving:				
Pavers,	4.50	-	-	-
Rammers, etc.,	2.70	-	-	-
Public buildings:				
Foreman,	2.50	-	-	-
Laborers,	2.25	-	-	-
Sewer:				
Expert foreman,	3.75, 4.00	-	-	-
Laborers,	1.75, 1.85	-	-	-
Mason,	3.50	-	-	-
Street:				
Blacksmith,	2.75	-	-	-
Foremen,	2.50	-	-	-
Laborers,	1.65 to 1.85	-	-	-
Wheelwright, etc.,	3.00	-	-	-
Water:				
Calkers,	2.00, 2.25	-	-	-
Expert foremen,	3.25	-	-	-
Laborers,	1.65, 1.75	-	-	-
Wires (occasional laborers),	-	Paid at the rate of \$0.20 and \$0.30 per hour.		

We condense, as before, the information presented, into an analysis table which shows the salient facts more plainly than the extended presentation.

CITIES.	Number of Departments in Cities Specified	PAY PER DAY			
		<i>Highest</i>		<i>Lowest</i>	
		Departments	Rate	Departments	Rate
Beverly, (a)	2	Highway and Water,	\$2.00	Highway and Water,	\$2.00
Boston,	7	Wires,	3.50	In 6 departments,	2.00
Brockton,	5	Public property,	2.75	In 4 departments,	2.00
Cambridge,	—*	-	2.50	-	2.00
Chelsea,	7	In 6 departments,	2.50	In 6 departments,	1.75
Chicopee, (a)	3	Highway, Sewer, Water,	1.50	Highway, Sewer, Water,	1.50
Everett,	3	Street and Water,	2.00	Sewer,	1.75
Fall River, (a)	4	In 4 departments,	2.00	In 4 departments,	2.00
Fitchburg,	6	Water,	3.00	Highway and Paving,	1.00
Gloucester,	5	Highway,	2.00	Water,	1.75
Haverhill,	1	Highway,	2.00	Highway,	1.75
Holyoke, (a)	6	In 6 departments,	2.00	In 6 departments,	2.00
Lawrence,	8	Paving,	3.50	Park,	1.50
Lowell,	8	Paving,	3.00	In 5 departments,	1.75
Lynn,	8	Highway,	3.00	In 4 departments,	2.00
Malden, (a)	3	In 3 departments,	2.00	In 3 departments,	2.00

* Information not supplied.

CITIES.	Number of Departments in Cities Specified	PAY PER DAY			
		<i>Highest</i>		<i>Lowest</i>	
		Departments	Rate	Departments	Rate
Marlborough, . . .	4	Highway,	\$4.48	In 3 departments,	\$1.50
Medford, (<i>u</i>) . . .	5	In 5 departments, . . .	2.00	In 5 departments,	2.00
New Bedford, . . .	6	Public buildings, Water, .	2.50	Park, Paving, Sewer, . . .	1.50
Newburyport,† . .	—*	—	—	—	—
Newton,	8	Paving and Wires, . . .	3.00	Highway, Sewer, Water, .	
				Wires,	1.75
North Adams, (<i>u</i>) . .	6	In 6 departments, . . .	1.50	In 6 departments,	1.50
Northampton, . . .	2	Highway,	1.75	—	—
Pittsfield,	5	Paving,	2.50	Highway, Paving, Sewer, .	
				Water,	1.75
Quincy,	5	Highway and Paving, . . .	2.00	In 4 departments,	1.75
Salem, (<i>u</i>)	9	In 9 departments, . . .	2.00	In 9 departments,	2.00
Somerville,	7	Inspectors (sewer), . . .	5.00	Water,	1.75
Springfield,	5	Masons (sewer),	6.50	Highway and Water, . . .	1.50
Taunton,	—*	—	1.75	—	1.75
Waltham,	6	Carpenters (public build- ings),	2.75	Sewer, Street, Water, . . .	1.80
		Water,	2.50		
Woburn,	3	Paving,	4.50	Sewer,	1.75
Worcester,	8			Health,	1.50

* Information not supplied.

† 20 cents per hour to all laborers.

Where rates are exceptionally high the branch of occupation is stated in the table. When departments are not mentioned by name in the columns headed "Departments" the reader is referred to the preceding detail presentation. In eight cities (Beverly, Chicopee, Fall River, Holyoke, Malden, Medford, North Adams, and Salem) there is practically no highest or lowest rate, as a uniform price per day is paid in all departments. These cities are indicated in the table by "*u*."

In conclusion, we present the results of a tabulation of rates paid, drawn from the second table (by cities) but omitting classification either by cities or departments.

RATES.	Number of Quotations	RATES.	Number of Quotations
\$1.00,	2	\$3.00,	13
1.50,	22	3.24,	1
1.65,	2	3.25,	1
1.75,	43	3.50,	4
1.80,	5	3.75,	1
1.85,	2	4.00,	2
1.90,	2	4.48,	1
1.92,	1	4.50,	3
2.00,	90	5.00,	2
2.02,	1	5.50,	1
2.05,	1	6.50,	1
2.10,	4	12.00 per week,	1
2.25,	16	45.00 per month,	1
2.50,	29	Per light,	2
2.70,	1	Per hour,	2
2.75,	5	By contract,	14

This table may be advantageously condensed.

RATES.	Number of Quotations at Rates Specified	Percentages
\$1.00,	2	0.72
Over \$1.00 but under \$2.00,	77	27.90
\$2.00,	90	32.61
Over \$2.00 but under \$3.00,	57	20.65
\$3.00,	13	4.71
Over \$3.00 but under \$4.00,	7	2.54
\$4.00 and over,	10	3.62
Rate not specified,	6	2.17
Contract,	14	5.08
TOTALS,	276	100.00

From the above table it will be seen that the largest concentration is on the \$2.00 per day rate, although 28.62 per cent of the quotations indicate a less compensation and 31.52 per cent a higher compensation per day. We could not classify 7.25 per cent on account of absence of definite rates. No average could be deduced from these rates as the number of employes to which each wage quotation applies is unknown. The percentages in the final table are indicative of the ruling rates.

The thanks of the Bureau are due, and are hereby tendered, to those city auditors and treasurers who furnished us with lists of the branches of city labor and the rates of pay per day in the various departments.

SAVINGS IN MASSACHUSETTS.

The subject of savings, as related to the economic and industrial condition of the people, is of great interest. The Bureau is frequently called upon by its correspondents to supply information upon this subject. A comparison of the condition of the Savings Banks of Massachusetts during the period from 1890 to 1895, if considered in connection with the Reports taken by the Bureau relating to the industries of the Commonwealth, will be of value. The data as to employment, wages, and other elements connected with our industries are fully presented in the Reports on the Annual Statistics of Manufactures. The Reports of the Commissioners of Savings Banks, issued annually, present for each year full data as to the financial status of the banks. The eleventh United States Census was taken in 1890, followed in the year 1895 by the Decennial Census of the Commonwealth. The first and last years of the period we have named are therefore Census years, and in each of them we have much material

relating to the social condition of the people, which is available in the regular Census Reports from which comparisons covering the whole period can be made. The last three years of the period have been marked by a serious industrial depression from which we are now recovering. How has the condition of the people, so far as measured by savings, been affected? Are the changes which have affected our industries and the social condition of the people reflected in any way in the condition of the savings banks?

As we have stated, full details, with comparisons covering the period named, as to wages and employment, may be consulted in the regular Reports of the Bureau. In order to enable comparisons to be made as to savings, we have compiled from the data contained as to each year in the Reports of the Commissioners of Savings Banks, for the years 1890 to 1895, the following tables, accompanied by analysis:

- (a) Assets.
- (b) Liabilities.
- (c) Analytical Statement.

Under "Assets" are included value of public funds on hand and loans on public funds; bank stock on hand and loans on bank stock; value of railroad bonds on hand, and loans on railroad bonds, railroad stock, and railroad notes; value of real estate held for banking purposes, of real estate acquired by foreclosure, and loans on real estate; loans on personal security; loans on county, city, or town notes; loans on depositors' books; sundry assets; expense account; and cash on hand, including cash in banks on interest, cash in banks not on interest, and cash in office—that is, held by the savings banks themselves for expenses and to meet withdrawals.

Under "Liabilities" the principal item is, of course, the amount due depositors, representing in 1895 about 95 per cent of the total liabilities. The next items in importance, among the liabilities, are the guaranty fund and undivided earnings. The minor items are profit and loss account, interest account, surplus account, premium account, rent account, amount due on incomplete mortgage loans, and sundry liabilities.

The "Analytical Statement" includes the number of open accounts and the average amount to the credit of each account; the number of deposits, the amount deposited (not including dividends), the average of deposits, and the average deposit *per capita* of population (Census of 1890); the number of withdrawals, the amount withdrawn (including dividends), and the average of withdrawals; the total earnings and amount of expenses; the total ordinary and extra dividends; the number of loans of an amount less than \$3,000; and the number of loans on real estate security.

We present the three tables, the contents of which we have just enumerated in detail.

Assets.

CLASSIFICATION.	AMOUNTS					
	October 31, 1890	October 31, 1891	October 31, 1892	October 31, 1893	October 31, 1894	October 31, 1895
Public funds,	\$43,513,822	\$46,610,318	\$54,107,604	\$56,431,236	\$64,566,181	\$67,827,426
Loans on public funds,	788,315	895,660	1,046,858	1,441,955	1,356,540	1,359,532
Bank stock,	28,120,754	28,353,143	28,972,054	29,031,146	28,764,455	28,988,921
Loans on bank stock,	1,762,731	2,092,668	2,000,504	2,333,330	1,910,870	1,875,297
Railroad bonds,	31,004,233	33,696,684	35,561,448	36,158,019	47,464,413	48,576,552
Loans on railroad bonds,	947,200	1,164,850	700,650	1,677,700	987,150	204,350
Loans on railroad stock,	1,158,537	1,725,932	1,596,765	1,408,375	830,400	830,600
Railroad notes,	3,730,000	3,950,000	3,360,000	4,029,110	475,000	450,000
Real estate for banking purposes,	2,500,035	2,856,738	3,229,554	3,427,922	3,557,940	3,824,401
Real estate by foreclosure,	1,548,063	1,312,510	1,305,310	1,026,169	1,360,562	1,539,191
Loans on real estate,	143,553,046	153,727,165	165,854,636	173,950,578	183,344,059	193,328,835
Loans on personal security,	93,862,179	92,718,288	94,144,458	88,798,633	78,917,603	89,746,536
Loans to counties, cities, or towns (notes),	8,870,920	8,902,646	9,405,957	9,609,499	10,294,620	11,261,742
Loans on depositors' books,	57,603	39,680	50,119	59,080	44,573	53,944
Sundry assets,	567,093	567,780	606,530	469,110	464,950	512,798
Expense account,	-	-	-	161,739	167,722	176,657
Cash on hand:						
In banks, on interest,	9,696,450	10,505,465	12,479,092	12,678,834	16,099,887	14,158,721
In banks, not on interest,	392,771	644,456	521,488	639,263	498,701	481,443
In office,	602,843	819,983	955,132	1,247,637	1,285,641	1,229,776
	\$372,476,565	\$390,565,966	\$415,898,159	\$424,579,335	\$442,391,267	\$466,426,722

Liabilities.

CLASSIFICATION.	AMOUNTS					
	October 31, 1890	October 31, 1891	October 31, 1892	October 31, 1893	October 31, 1894	October 31, 1895
Deposits,	\$353,592,937	\$369,526,386	\$393,019,862	\$399,995,570	\$416,778,018	\$439,269,861
Guaranty fund,	12,065,105	13,273,683	14,545,655	15,743,022	16,851,217	18,061,542
Undivided earnings,	6,329,320	-	-	-	8,490,938	8,861,435
Profit and loss account,	-	3,943,979	4,121,648	4,674,665	-	-
Interest account,	-	3,312,449	3,591,320	3,628,220	-	-
Surplus account,	-	190,168	219,697	264,451	-	-
Premium account,	-	120,250	65,583	100,611	-	-
Rent account,	-	33,523	45,869	41,145	-	-
Due on incomplete mortgage loans,	-	39,756	86,516	73,067	125,033	161,344
Sundry liabilities,	489,207	125,973	202,009	58,583	146,060	72,540
	\$372,476,569	\$390,565,967	\$415,898,159	\$424,579,334	\$442,391,266	\$466,426,722

Analytical Statement.

CLASSIFICATION.	October 31, 1890	October 31, 1891	October 31, 1892	October 31, 1893	October 31, 1894	October 31, 1895
Number of open accounts,	1,083,817	1,131,203	1,189,936	1,214,493	1,247,090	1,302,479
Average amount to the credit of each account,	\$326.25	\$326.67	\$330.29	\$329.35	\$334.20	\$337.26
Average deposit <i>per capita</i> of population (Census of 1890),	\$157.93	\$165.05	\$175.54	\$178.65	\$186.15	\$196.20

Analytical Statement — Concluded.

CLASSIFICATION.	October 31, 1890	October 31, 1891	October 31, 1892	October 31, 1893	October 31, 1894	October 31, 1895
Number of deposits, . . .	1,060,877	968,750	1,175,295	1,101,410	1,044,649	1,214,171
Number of withdrawals, . . .	725,751	805,197	820,138	953,953	968,577	962,205
Amount deposited (not including dividends), . . .	\$72,023,704	\$73,405,435	\$82,535,534	\$75,727,471	\$74,946,570	\$80,768,469
Average of deposits, . . .	\$68	\$76	\$70	\$69	\$72	\$67
Amount withdrawn (including dividends), . . .	\$65,065,778	\$71,172,935	\$73,658,238	\$84,403,075	\$74,124,697	\$74,309,786
Average of withdrawals, . . .	\$90	\$88	\$90	\$89	\$77	\$77
Amount of expenses, . . .	\$850,979	\$882,788	\$936,830	\$1,010,640	\$1,028,838	\$1,080,612
Total earnings, . . .	\$17,628,702	\$18,815,335	\$19,628,798	\$20,244,958	\$20,635,414	\$20,596,223
Total ordinary dividends, . . .	\$13,091,807	\$13,956,945	\$14,603,123	\$15,546,430	\$15,665,212	\$15,904,067
Total extra dividends, . . .	\$185,790	\$25,754	\$18,672	\$109,135	\$105,752	\$121,827
Number of loans of an amount less than \$3,000, . . .	51,060	52,695	55,093	56,421	59,519	61,800
Number of loans on real estate security,	<i>a</i> 55,945	<i>b</i> 58,581	<i>c</i> 61,398	<i>d</i> 63,200	<i>e</i> 66,682	<i>f</i> 69,920

a Averaging \$2,562.39 each.*c* Averaging \$2,701.30 each.*e* Averaging \$2,749.55 each.*b* Averaging \$2,624.18 each.*d* Averaging \$2,752.38 each.*f* Averaging \$2,765.00 each.

The information contained in the three preceding tables may be classified, for purposes of more detailed analysis, under the following heads :

Open Accounts.

Number of Loans.

Annual Deposits.

Loans.

Annual Withdrawals.

Sundry Assets, Liabilities, and Guaranty

Funds, Bonds, and Stocks.

Fund.

Real Estate.

Earnings, Expenses, and Dividends.

Cash.

We present first, with analysis, the tables appropriately coming under the heading

OPEN ACCOUNTS.

The first table shows the whole number of open accounts, in all the savings banks of the State, on the dates mentioned.

Whole Number of Open Accounts.

DATES.	Number	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	1,083,817	—	—
October 31, 1891,	1,131,203	+47,386	+4.37
October 31, 1892,	1,189,936	+58,733	+5.19
October 31, 1893,	1,214,493	+24,557	+2.06
October 31, 1894,	1,247,090	+32,597	+2.68
October 31, 1895,	1,302,479	+55,389	+4.44
1895 as compared with 1890,	+218,662	—	+20.18

On June 1, 1890, the population of Massachusetts was 2,238,943. On Oct. 31 of that year the savings banks of Massachusetts had 1,083,817 open accounts. This does not mean so many different individuals, for many depositors have accounts in more than one bank, but, in order to show the relations of the figures it may be said, truthfully, that each thousand men, women, and children in this State had *484* open accounts in the savings banks. The population of the State on May 1, 1895, was 2,500,183. On Oct. 31, 1895, the number of open accounts was 1,302,479, or *520* open accounts to each thousand of population. This shows an average gain of 36 open accounts to the thousand of population during the semi-decade considered.

The actual gain in number of open accounts from 1890 to 1895 was 218,662, or 20.18 per cent. The actual net percentage of increase in population in 1895 as compared with 1890 was 11.67. This indicates that the growth in the number of open accounts was 8.51 per cent more than the increase in population.

The next table shows the total amount on deposit at dates specified.

Total Amounts on Deposit.

DATES.	Amounts Deposited	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$353,592,937	-	-
October 31, 1891,	369,526,386	+\$15,933,449	+4.51
October 31, 1892,	393,019,862	+23,493,476	+6.36
October 31, 1893,	399,995,570	+6,975,708	+1.77
October 31, 1894,	416,778,018	+16,782,448	+4.20
October 31, 1895,	439,269,861	+22,491,843	+5.40
1895 as compared with 1890,	+\$85,676,924	-	+24.23

The actual money increase in total deposits in 1895 as compared with 1890 was \$85,676,924, or an increase of 24.23 per cent. The numerical gains from year to year, and their equivalent percentages are shown in the table.

We next show the average amount to the credit of each open account.

Average Amount to the Credit of Each Open Account.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$326.25	-	-
October 31, 1891,	326.67	+\$0.42	+0.13
October 31, 1892,	330.29	+3.62	+1.11
October 31, 1893,	329.35	-0.94	-0.28
October 31, 1894,	334.20	+4.85	+1.47
October 31, 1895,	337.26	+3.06	+0.92
1895 as compared with 1890,	+\$11.01	-	+3.37

These figures do not indicate any violent financial fluctuations during the period considered. Between no two consecutive years does the variation amount to five dollars. The only depression was in 1893, and that was less than one dollar. The gain for the five years was \$11.01, or 3.37 per cent. The table shows the absolute confidence of the people of Massachusetts in the stability of her savings banks.

In the third line of the tabular analytical statement, page 16, is shown the average deposit *per capita* of population for each year of the period beginning with 1890. In this statement, however, the population shown by the Census of 1890 is continuously used. The figures are therefore inexact except for the year 1890, as the population constantly increased, until in 1895 it had become 2,500,183. If this actual population in 1895 is used in obtaining the *per capita* deposit for 1895, we find the amount to be \$175.70, instead of \$196.20, as given on page 16. In order to approach exactness, we introduce a table in which the deposits *per capita* for each year are based upon an estimated population except for the years 1890 and 1895, in which the actual population figures are used. In making the estimates of population for the intermediate years, we have assumed a uniform numerical rate of increase from year to year.

Average Deposit per capita of Population.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$157.93	-	-
October 31, 1891,	161.28	+\$3.35	+2.12
October 31, 1892,	167.71	+6.43	+3.99
October 31, 1893,	166.96	-0.75	-0.45
October 31, 1894,	170.26	+3.30	+1.98
October 31, 1895,	175.70	+5.44	+3.20
1895 as compared with 1890,	+\$17.77	-	+11.25

According to this table, the amount of deposits *per capita*, which was \$157.93 in 1890, has risen to \$175.70 in 1895. Each year shows an increase over the previous year, except the year 1893, which shows a slight decline as compared with 1892.

The next series of tables relates to

ANNUAL DEPOSITS.

The first table of this series shows the number of deposits made each year, the dates given being the end of each year considered. These figures should not be confounded with the "number of depositors." Every time a person makes a deposit it is counted. For instance, if a person made six deposits in a year, he would count one only in the "number of depositors," but would appear six times in making up the number of annual deposits.

Number of Annual Deposits.

DATES.	Number	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	1,060,877	-	-
October 31, 1891,	968,750	-92,127	-8.68
October 31, 1892,	1,175,295	+206,545	+21.32
October 31, 1893,	1,101,410	-73,885	-6.29
October 31, 1894,	1,044,649	-56,761	-5.15
October 31, 1895,	1,214,171	+169,522	+16.23
1895 as compared with 1890,	+153,294	-	+14.45

Of the five years considered three have shown decreases in the number of deposits (1891, 1893, and 1894), while two years (1892 and 1895) have shown gains. In 1895 as compared with 1890 the gain was 153,294, or 14.45 per cent.

The second table in this series shows the total amount deposited (not including dividends) in each of the years under consideration.

Amount Deposited Annually (Not Including Dividends).

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$72,023,704	-	-
October 31, 1891,	73,405,435	+\$1,381,731	+1.92
October 31, 1892,	82,535,534	+9,130,099	+12.44
October 31, 1893,	75,727,471	-6,808,063	-8.25
October 31, 1894,	74,946,570	-780,901	-1.03
October 31, 1895,	80,768,469	+5,821,899	+7.77
1895 as compared with 1890,	+\$8,744,765	-	+12.14

We have seen, previously, that the number of annual deposits in 1891 was less by 92,127 (8.68 per cent) than 1890, but the preceding table shows, despite this fact, that the amount deposited in 1891 was greater than that in 1890 by \$1,381,731, or 1.92 per cent. No such peculiarity is disclosed by comparing the other years. The gain in 1895 as compared with 1890 was \$8,744,765, or 12.14 per cent.

The average annual deposit for each year is shown in the third and concluding table of this series. To learn the average annual deposit it is obvious that the amount deposited annually is divided by the number of annual deposits. In this way, the averages for the years 1890 to 1895 in the following table were obtained. It does not follow that the particular amount stated was deposited at any one time by any depositor. Each depositor made, on the average, a certain number of deposits in a

year, and to ascertain the average amount deposited at any one time, it would be necessary to divide the average annual deposit by the average number of deposits annually. Unfortunately the number of different persons making deposits in any one year is not known, and it is consequently impossible to arrive at the average annual amount deposited by each person who actually made a deposit during the time considered.

Average Annual Deposit.

DATES.	Averages	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$68	—	—
October 31, 1891,	76	+\$8	+11.76
October 31, 1892,	70	—6	—7.89
October 31, 1893,	69	—1	—1.43
October 31, 1894,	72	+3	+4.35
October 31, 1895,	67	—5	—6.94
1895 as compared with 1890,	—\$1	—	—1.47

The average annual deposit shows an increase in 1891 and 1894, and decrease in 1892, 1893, and 1895. The decrease in 1895 as compared with 1890 was one dollar, or 1.47 per cent.

The next series of tables relates to

ANNUAL WITHDRAWALS.

The number of annual withdrawals is first shown.

Number of Annual Withdrawals.

DATES.	Number	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	725,751	—	—
October 31, 1891,	805,197	+79,446	+10.95
October 31, 1892,	820,138	+14,941	+1.86
October 31, 1893,	953,053	+132,915	+16.21
October 31, 1894,	968,577	+15,524	+1.63
October 31, 1895,	962,205	—6,372	—0.66
1895 as compared with 1890,	+236,454	—	+32.58

From 1891 to 1894 a steady increase in withdrawals is shown, notably in 1893. In 1895 the tide turned and withdrawals decreased. The number of withdrawals in 1895 shows an increase as compared with 1890 of 236,454, or 32.58 per cent.

The second table of this series shows the amount withdrawn annually (including dividends).

Amount Withdrawn Annually (Including Dividends).

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$65,065,778	-	-
October 31, 1891,	71,172,935	+\$6,107,157	+9.39
October 31, 1892,	73,658,238	+2,485,303	+3.49
October 31, 1893,	84,403,075	+10,744,837	+14.59
October 31, 1894,	74,124,697	-10,278,378	-12.18
October 31, 1895,	74,309,786	+185,089	+0.25
1895 as compared with 1890,	+\$9,244,008	-	+14.21

Comparing number and amounts of withdrawals some peculiarities are disclosed. For instance, although 1894 showed an increase of 1.63 per cent in number of withdrawals, there was in reality a decrease of 12.18 per cent in amount. On the other hand, although 1895 shows a decrease of 0.66 per cent in number of withdrawals, there was an actual increase in amount of 0.25 per cent.

In 1895 as compared with 1890 the withdrawals show an increase of \$9,244,008, or 14.21 per cent.

The average annual withdrawal is next given, closing this series.

Average Annual Withdrawal.

DATES.	Averages	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$90	-	-
October 31, 1891,	88	-\$2	-2.22
October 31, 1892,	90	+2	+2.27
October 31, 1893,	89	-1	-1.11
October 31, 1894,	77	-12	-13.48
October 31, 1895,	77	=	=
1895 as compared with 1890,	-\$13	-	-14.44

The average annual withdrawal shows a decline excepting in 1892, when an increase is noted, and in 1894 and 1895, when the average annual withdrawal remains the same. The decline in 1895 as compared with 1890 was \$13, or 14.44 per cent.

FUNDS, BONDS, AND STOCKS.

The next series of tables relates to assets of the savings banks consisting of public funds, railroad bonds, and bank stock. The three tables of the series are first given, their analysis following them.

Public Funds.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$43,513,822	—	—
October 31, 1891,	46,610,318	+\$3,096,496	+7.12
October 31, 1892,	54,107,604	+7,497,286	+16.09
October 31, 1893,	56,431,236	+2,323,632	+4.29
October 31, 1894,	64,566,181	+8,134,945	+14.42
October 31, 1895,	67,827,426	+3,261,245	+5.05
1895 as compared with 1890,	+\$24,313,604	—	+55.88

Railroad Bonds.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$31,004,233	—	—
October 31, 1891,	33,696,684	+\$2,692,451	+8.68
October 31, 1892,	35,561,448	+1,864,764	+5.53
October 31, 1893,	36,158,019	+596,571	+1.68
October 31, 1894,	47,464,413	+11,306,394	+31.27
October 31, 1895,	48,576,552	+1,112,139	+2.34
1895 as compared with 1890,	+\$17,572,319	—	+56.68

Bank Stock.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$28,120,754	—	—
October 31, 1891,	28,335,143	+\$214,389	+0.76
October 31, 1892,	28,972,054	+636,911	+2.23
October 31, 1893,	29,031,146	+59,092	+0.20
October 31, 1894,	28,764,455	—266,691	—0.92
October 31, 1895,	28,988,921	+224,466	+0.78
1895 as compared with 1890,	+\$868,167	—	+3.09

There was a steady increase in public funds as an asset. The gain in 1895 as compared with 1890 was \$24,313,604, or 55.88 per cent. The same may be said of railroad bonds, the gain in 1895 over 1890 being \$17,572,319, or 56.68 per cent. In bank stock, slight gains only are shown in 1891, 1892, 1893, and 1895, and a slight decrease in 1894. For the five year period the gain was but \$868,167, or 3.09 per cent.

REAL ESTATE.

The fifth series of tables relates to assets such as real estate owned and used for banking purposes and to real estate acquired by foreclosure.

Real Estate for Banking Purposes.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$2,500,035	-	-
October 31, 1891,	2,856,738	+\$356,703	+14.27
October 31, 1892,	3,229,554	+372,816	+13.05
October 31, 1893,	3,427,922	+198,368	+6.14
October 31, 1894,	3,557,940	+130,018	+3.79
October 31, 1895,	3,824,401	+266,461	+7.49
1895 as compared with 1890,	+\$1,324,366	-	+52.97

Real Estate by Foreclosure.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$1,548,033	-	-
October 31, 1891,	1,312,510	-\$235,523	-15.21
October 31, 1892,	1,305,310	-7,200	-0.55
October 31, 1893,	1,026,169	-279,141	-21.39
October 31, 1894,	1,360,562	+334,393	+32.59
October 31, 1895,	1,539,191	+178,629	+13.13
1895 as compared with 1890,	-\$8,842	-	-0.57

The increase in five years of real estate used for banking purposes was \$1,324,366, or 52.97 per cent. The second table shows a marked increase in amount of real estate held by banks under foreclosure of mortgage, in the years 1894 and 1895. However, when 1895 is compared with 1890 a decrease of \$8,842, or 0.57 per cent, is shown.

It should be understood that by "real estate for banking purposes" is meant the value of the buildings occupied wholly or in part by the banks themselves, the rented portions forming a source of revenue to the banks.

The real estate acquired by foreclosure is of course sold as soon as a favorable sale can be made, in any event within five years after the title has vested in the bank, unless a longer holding is permitted by the Savings Banks Commissioners.

CASH.

The following tables relate to cash on hand in banks bearing interest, cash not on interest, and that on hand in the banks themselves to meet expenses and withdrawals.

Cash on Hand in Banks, on Interest.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$9,696,450	-	-
October 31, 1891,	10,505,465	+\$809,015	+8.34
October 31, 1892,	12,479,092	+1,973,627	+18.79
October 31, 1893,	12,678,834	+199,742	+1.60
October 31, 1894,	16,099,887	+3,421,053	+26.98
October 31, 1895,	14,158,721	-1,941,166	-12.06
1895 as compared with 1890,	+\$4,462,271	-	+46.02

Cash on Hand in Banks, Not on Interest.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$392,771	-	-
October 31, 1891,	644,456	+\$251,685	+64.08
October 31, 1892,	521,488	-122,968	-19.08
October 31, 1893,	639,263	+117,775	+22.58
October 31, 1894,	498,701	-140,562	-21.99
October 31, 1895,	481,443	-17,258	-3.46
1895 as compared with 1890,	+\$88,672	-	+22.58

Cash on Hand in Office.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$602,843	-	-
October 31, 1891,	819,983	+\$217,140	+36.02
October 31, 1892,	955,132	+135,149	+16.48
October 31, 1893,	1,247,637	+292,505	+30.62
October 31, 1894,	1,285,641	+38,004	+3.05
October 31, 1895,	1,229,776	-55,865	-4.35
1895 as compared with 1890,	+\$626,933	-	+104.00

The amount of cash on interest in banks shows a widely varying increase until 1895, when a marked decline is noticed. The increase in 1895 as compared with 1890 was \$4,462,271, or 46.02 per cent. The variations in cash on hand in banks, not on interest, have been marked. A very large increase is shown in 1891; a marked decrease in 1892; a rally in 1893, wholly overcome in 1894, falling still lower in 1895. The gain in 1895 over 1890 was \$88,672 or 22.58 per cent. Cash on hand in office (the banks themselves) shows notable increases until 1895, with a decrease in that year. The increase in 1895 over 1890 was \$626,933, or 104 per cent.

NUMBER OF LOANS.

Under this heading we give two tables, one showing the number of loans of an amount less than \$3,000, and the other the number of loans on real estate security.

Number of Loans of an Amount Less than \$3,000.

DATES.	Number	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	51,060	—	—
October 31, 1891,	52,695	+1,635	+3.20
October 31, 1892,	55,093	+2,398	+4.55
October 31, 1893,	56,421	+1,328	+2.41
October 31, 1894,	59,519	+3,098	+5.49
October 31, 1895,	61,800	+2,281	+3.83
1895 as compared with 1890,	+10,740	—	+21.03

Number of Loans on Real Estate Security.

DATES.	Number	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	55,945	—	—
October 31, 1891,	58,581	+2,636	+4.71
October 31, 1892,	61,398	+2,817	+4.81
October 31, 1893,	63,200	+1,802	+2.93
October 31, 1894,	66,682	+3,482	+5.51
October 31, 1895,	69,920	+3,238	+4.86
1895 as compared with 1890,	+13,975	—	+24.98

The increase in the number of loans less than \$3,000 in amount is moderate and regular. The increase in 1895 over 1890 was 10,740, or 21.03 per cent. The increases in the number of loans on real estate security are also uniform. The gain in 1895 over 1890 was 13,975, or 24.98 per cent.

LOANS.

The eighth series of tables relates to loans made by the banks.

Loans on Public Funds.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$788,315	—	—
October 31, 1891,	895,660	+\$107,345	+13.62
October 31, 1892,	1,046,858	+151,198	+16.88
October 31, 1893,	1,441,955	+395,097	+37.74
October 31, 1894,	1,356,540	—85,415	—5.92
October 31, 1895,	1,359,532	+2,992	+0.22
1895 as compared with 1890,	+\$571,217	—	+72.46

Loans to Counties, Cities, and Towns (Notes).

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$8,870,920	—	—
October 31, 1891,	8,902,646	+\$31,726	+0.36
October 31, 1892,	9,405,957	+503,311	+5.65
October 31, 1893,	9,609,499	+203,542	+2.16
October 31, 1894,	10,294,620	+685,121	+7.13
October 31, 1895,	11,261,742	+967,122	+9.39
1895 as compared with 1890,	+\$2,390,822	—	+26.95

Loans on Railroad Bonds.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$947,200	—	—
October 31, 1891,	1,164,850	+\$217,650	+22.98
October 31, 1892,	700,650	—464,200	—39.85
October 31, 1893,	1,677,700	+977,050	+139.45
October 31, 1894,	987,150	—690,550	—41.16
October 31, 1895,	204,350	—782,800	—79.30
1895 as compared with 1890,	—\$742,850	—	—78.43

Loans on Railroad Stock.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$1,158,537	—	—
October 31, 1891,	1,725,932	+\$567,395	+48.98
October 31, 1892,	1,596,765	—129,167	—7.48
October 31, 1893,	1,408,375	—188,390	—11.80
October 31, 1894,	830,400	—577,975	—41.04
October 31, 1895,	830,600	+200	+0.02
1895 as compared with 1890,	—\$327,937	—	—28.31

Railroad Notes.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$3,730,000	—	—
October 31, 1891,	3,950,000	+\$220,000	+5.90
October 31, 1892,	3,260,000	—590,000	—14.94
October 31, 1893,	4,029,110	+669,110	+19.91
October 31, 1894,	475,000	—3,554,110	—88.21
October 31, 1895,	450,000	—25,000	—5.26
1895 as compared with 1890,	—\$3,280,000	—	—87.94

Loans on Bank Stock.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$1,762,731	-	-
October 31, 1891,	2,092,668	+\$329,937	+18.72
October 31, 1892,	2,000,504	-92,164	-4.40
October 31, 1893,	2,333,330	+332,826	+16.64
October 31, 1894,	1,910,870	-422,460	-18.11
October 31, 1895,	1,875,297	-35,573	-1.86
1895 as compared with 1890,	+\$112,566	-	+6.39

Loans on Real Estate.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$143,353,046	-	-
October 31, 1891,	153,727,165	+\$10,374,119	+7.24
October 31, 1892,	165,854,636	+12,127,471	+7.89
October 31, 1893,	173,950,578	+8,095,942	+4.88
October 31, 1894,	183,344,059	+9,393,481	+5.40
October 31, 1895,	193,328,835	+9,984,776	+5.45
1895 as compared with 1890,	+\$49,975,789	-	+34.86

Loans on Personal Security.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$93,862,179	-	-
October 31, 1891,	92,718,288	-\$1,143,891	-1.22
October 31, 1892,	94,144,458	+1,426,170	+1.54
October 31, 1893,	88,798,633	-5,345,825	-6.68
October 31, 1894,	78,917,603	-9,881,030	-11.13
October 31, 1895,	89,746,536	+10,828,933	+13.72
1895 as compared with 1890,	-\$4,115,643	-	-4.38

Loans on Depositors' Books.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$57,603	-	-
October 31, 1891,	39,680	-\$17,923	-31.11
October 31, 1892,	50,119	+10,439	+26.31
October 31, 1893,	59,080	+8,961	+17.88
October 31, 1894,	44,573	-14,507	-24.55
October 31, 1895,	53,944	+9,371	+21.02
1895 as compared with 1890,	-\$3,659	-	-6.35

Comparisons are made in each table for the years 1891 to 1895 with each previous year, and also between 1890 and 1895. We present a graphic table which drops amounts and percentages but shows at a glance the financial movements of the savings banks, as regards loans, during the semi-decade.

DESCRIPTION OF LOANS.	COMPARISONS					
	1891 with 1890	1892 with 1891	1893 with 1892	1894 with 1893	1895 with 1894	1895 with 1890
On public funds,	+	+	+	—	+	+
On county, city, and town notes,	+	+	+	+	+	+
On railroad bonds,	+	—	+	—	—	—
On railroad stock,	+	—	—	—	+	—
On railroad notes,	+	—	+	—	—	—
On bank stock,	+	—	+	—	—	+
On real estate,	+	+	+	+	+	+
On personal security,	—	+	—	—	+	—
On depositors' books,	—	+	+	—	+	—

In 1891 as compared with 1890 all classes of loans increased excepting those on personal security and depositors' books. In 1892 loans on railroad securities of all sorts and bank stock show a decline. In 1893 all rallied but railroad stocks, and loans on personal security show a decrease. In 1894 only loans on county, city, and town notes, and loans on real estate show an increase. All other classes of loans declined. In 1895 railroad bonds, notes, and bank stock show further decline.

The increases or decreases in 1895 as compared with 1890, as regards amounts and percentages, for all classes of loans, are brought forward in the following table :

DESCRIPTION OF LOANS.	Increase (+), or Decrease (—), in 1895 as Compared with 1890	Percentages of Increase (+), or Decrease (—)
On public funds,	+\$571,217	+72.46
On county, city, and town notes,	+2,390,822	+26.95
On railroad bonds,	—742,850	—78.43
On railroad stock,	—327,937	—28.31
On railroad notes,	—3,280,000	—87.94
On bank stock,	+112,566	+6.39
On real estate,	+49,975,789	+34.86
On personal security,	—4,115,643	—4.38
On depositors' books,	—3,659	—6.35

The guaranty fund of the banks, it is perhaps unnecessary to explain, is accumulated out of undivided earnings, for the purpose of meeting losses, chiefly those unusual or unexpected. It is, therefore, an emergency fund contributing to the strength of the banks as conservators of popular savings. The statute contemplates that it shall be accumulated

until it amounts to five per cent of the aggregate deposits, and thereafter be maintained at that limit. This fund shows a constant appreciation from year to year, notwithstanding the depression of 1893, until in 1895 it had become 4.11 per cent of the deposits, nearly the required amount, the percentages in other years being as follows: 1890, 3.41; 1891, 3.59; 1892, 3.70; 1893, 3.94; 1894, 4.04.

The item termed "sundry assets" consists of interest and premium accounts, stocks taken to secure indebtedness, furniture and fixtures, etc.

The next series of tables presents a comparative statement of

SUNDRY ASSETS, LIABILITIES, AND GUARANTY FUND.

Sundry Assets.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$567,093	—	—
October 31, 1891,	567,780	+887	+0.12
October 31, 1892,	606,530	+38,750	+6.82
October 31, 1893,	469,110	—137,420	—22.66
October 31, 1894,	464,950	—4,160	—0.89
October 31, 1895,	512,798	+47,848	+10.29
1895 as compared with 1890,	—\$54,295	—	—9.57

Sundry Liabilities.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$489,207	—	—
October 31, 1891,	125,973	—\$363,234	—74.25
October 31, 1892,	202,009	+76,036	+60.36
October 31, 1893,	58,583	—143,426	—71.00
October 31, 1894,	146,060	+87,477	+149.32
October 31, 1895,	72,540	—73,520	—50.34
1895 as compared with 1890,	—\$416,667	—	—85.17

Guaranty Fund.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$12,065,105	—	—
October 31, 1891,	13,273,683	+81,208,578	+10.02
October 31, 1892,	14,545,655	+1,271,972	+9.58
October 31, 1893,	15,743,022	+1,197,367	+8.23
October 31, 1894,	16,851,217	+1,108,195	+7.04
October 31, 1895,	18,061,542	+1,210,325	+7.13
1895 as compared with 1890,	+85,996,437	—	+49.70

The "Sundry Assets" show a decline in five years of \$54,295, or 9.57 per cent. The "Sundry Liabilities" have decreased in a marked manner, being less in 1895 than in 1890 by \$416,667, or 85.17 per cent. The "Guaranty Fund," as before stated, has steadily increased, 1895 leading 1890 by \$5,996,437, or 49.70 per cent.

The tenth and last series of tables relates to

EARNINGS, EXPENSES, AND DIVIDENDS.

Total Earnings.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$17,628,702	-	-
October 31, 1891,	18,815,335	+\$1,186,633	+6.73
October 31, 1892,	19,628,798	+813,463	+4.32
October 31, 1893,	20,244,058	+616,160	+3.14
October 31, 1894,	20,635,414	+390,456	+1.93
October 31, 1895,	20,506,223	-39,191	-0.19
1895 as compared with 1890,	+\$2,967,521	-	+16.83

Amount of Expenses.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$850,979	-	-
October 31, 1891,	882,788	+\$31,809	+3.74
October 31, 1892,	936,830	+54,042	+6.12
October 31, 1893,	1,010,640	+73,810	+7.88
October 31, 1894,	1,028,838	+18,198	+1.80
October 31, 1895,	1,080,612	+51,774	+5.03
1895 as compared with 1890,	+\$229,633	-	+26.98

Total Ordinary Dividends.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$13,091,807	-	-
October 31, 1891,	13,956,945	+\$865,138	+6.61
October 31, 1892,	14,603,123	+646,178	+4.63
October 31, 1893,	15,546,430	+943,307	+6.46
October 31, 1894,	15,665,212	+118,782	+0.76
October 31, 1895,	15,904,067	+238,855	+1.52
1895 as compared with 1890,	+\$2,812,260	-	+21.48

Total Extra Dividends.

DATES.	Amounts	Increase (+), or Decrease (—), as Compared with the Previous Year	Percentages of Increase (+), or Decrease (—)
October 31, 1890,	\$185,790	-	-
October 31, 1891,	25,754	—\$160,036	—86.14
October 31, 1892,	18,672	—7,082	—27.50
October 31, 1893,	109,135	+90,463	+484.48
October 31, 1894,	105,752	—3,383	—3.10
October 31, 1895,	121,827	+16,075	+15.20
1895 as compared with 1890,	—\$63,963	-	—34.43

Total earnings steadily increased until 1895, that year showing a loss. The increase in 1895 over 1890 was \$2,967,521, or 16.83 per cent. Expenses have also steadily increased, showing an increase in 1895 over 1890 of \$229,633, or 26.98 per cent. Ordinary dividends show increases each year, those in 1894 and 1895 being very small, however. The increase in 1895 over 1890 was \$2,812,260, or 21.48 per cent, an average for each of the five years considered of 4.30 per cent. The fluctuations in extra dividends are very marked. Decreases took place in 1891 and 1892, followed by an increase of nearly 500 per cent in 1893 as compared with 1892. A decline in 1894 was followed by an increase in 1895. As a result for the five years, 1895 shows a loss as compared with 1890 of \$63,963, or 34.43 per cent.

In the following table we bring together the total amounts on deposit on the dates specified, the sum of the ordinary and extra dividends, and the percentage of total dividends of total deposits.

DATES.	Total Amount on Deposit	Combined Ordinary and Extra Dividends	Percentage of Total Dividends of Total Deposits
October 31, 1890,	\$353,592,937	\$13,277,597	3.76
October 31, 1891,	369,526,386	13,982,699	3.78
October 31, 1892,	393,019,862	14,621,795	3.72
October 31, 1893,	399,995,570	15,655,565	3.91
October 31, 1894,	416,778,018	15,770,964	3.78
October 31, 1895,	439,269,861	16,025,894	3.65
1895 as compared with 1890,	+\$85,676,924	+\$2,748,297	3.21

The large amounts represented by the assets of these banks are not the holdings of those popularly termed "capitalists." On the other hand, the sums represent the savings or wealth of large numbers of persons, many of whom are wage earners or persons of limited means and small salaries, although deposits are not restricted by law to this class, except as the limitation upon individual deposits in any one bank creates such a

restriction. The presence of so large an amount of loanable capital, distributed over different parts of the Commonwealth, and to a great extent necessarily employed in local industrial operations, is, of itself, an advantage, quite apart from the promotion of thrift through the habit of saving fostered by these banks.

A comparison of the foregoing tables shows the banks to have been much less affected by the industrial depression than might have been supposed. The yearly increase in the number of open accounts diminished in 1893 and 1894, but recovered in 1895; and, on the whole, notwithstanding the years of depression, the increase, on a percentage basis, during the five year period, is greater than the increase in population. This increase in open accounts does not appear to have been caused by an increase in the holders of large deposits, as although the total amount on deposit at the end of each year shows a constant increase, and in the aggregate stood 24.23 per cent higher in 1895 than in 1890, nevertheless, the average amount to the credit of each open account has not materially changed. This average amount does not seem to have been much affected, either one way or the other, by the industrial depression. In the year 1893 it shows a slight decline, and in each of the other years a slight increase. The changes, however, are small when measured in percentages, the average amount to each account never, during the six years, dropping below \$326 nor rising above \$338.

It is also interesting to note that when the population of the whole State is used as a measure of the savings of the people, a constant increase is shown per capita year by year during the whole period, except in the single year 1893, in which the industrial disturbance was at its maximum; and while the average deposit per capita of population was nearly \$158 in 1890, it became nearly \$176 in 1895.

The assistance afforded by these savings in mitigating the severity of the industrial depression which, of course, affected the earnings of the people, is clearly indicated by the increase in the number and amount of the withdrawals during the year 1893; and a gradual return toward better industrial conditions, which is disclosed by the returns as to manufactures in the Commonwealth since 1893, is also shown by the decrease in the amount of withdrawals during the years 1894 and 1895, as compared with 1893. It would be exceedingly interesting, and would supply valuable economic data, if the different classes of persons making deposits in the savings banks of the Commonwealth could be discovered from the returns. This might easily be done were the occupations of depositors returned; such data, however, are not available.

One effect of the depression appears in the increase in value of property held under foreclosure, shown in the years 1894 and 1895. Notwithstanding this, the banks did not increase their holdings when the year 1895 is compared with 1890, as the value of such real estate held in 1895

was \$8,842 less than in 1890, showing therefore a fractional percentage of decline.

The following table enables the reader to see at a glance the percentages of the total assets represented by different classes of property in each of the six years of the period under consideration.

Percentages of Assets.

CLASSIFICATION.	PERCENTAGES OF ASSETS, OCTOBER 31—					
	1890	1891	1892	1893	1894	1895
Public funds,	11.68	11.93	13.01	13.29	11.55	14.54
Loans on public funds,	0.21	0.23	0.25	0.34	0.31	0.30
Bank stock,	7.55	7.25	6.97	6.84	6.51	6.22
Loans on bank stock,	0.47	0.53	0.48	0.55	0.44	0.40
Railroad bonds,	8.32	8.63	8.55	8.52	10.73	10.41
Loans on railroad bonds,	0.26	0.30	0.17	0.40	0.23	0.04
Loans on railroad stock,	0.31	0.44	0.38	0.53	0.19	0.18
Railroad notes,	1.00	1.01	0.81	0.95	0.11	0.10
Real estate for banking purpose,	0.67	0.73	0.78	0.81	0.81	0.82
Real estate by foreclosure,	0.42	0.34	0.31	0.24	0.31	0.33
Loans on real estate,	38.19	39.37	39.88	40.97	41.15	41.45
Loans on personal security,	25.20	23.71	22.61	20.91	17.81	19.24
Loans to counties, cities, and towns (notes),	2.38	2.28	2.26	2.26	2.33	2.41
Loans on depositors' books,	0.02	0.01	0.01	0.01	0.01	0.01
Sundry assets,	0.15	0.15	0.15	0.15	0.14	0.15
Expense account,						
Cash on hand,	2.87	3.06	3.35	3.43	4.01	3.40
TOTAL ASSETS,	100.00	100.00	100.00	100.00	100.00	100.00

The salient lines in this table are those shown in full-faced type, the others being of minor importance and presenting no significant changes. The investment in public funds, which in 1890 formed 11.68 per cent of the assets, constituted, in 1895, 14.54 per cent of such assets. The holdings in railroad bonds formed 8.32 per cent of the assets in 1890, and 10.41 per cent in 1895; while loans on real estate formed 38.19 per cent in 1890 and 41.45 per cent in 1895. These three forms of investment, therefore, indicate increasing percentages of the total assets during the period. Loans to counties, cities, and towns, limited to 2.38 per cent of the total assets in 1890, formed 2.41 per cent in 1895, an immaterial change. The cash on hand, which amounted to 2.87 per cent of the assets in 1890, formed 3.40 per cent in 1895; while the loans on personal security, which formed 25.20 per cent in 1890, constituted only 19.24 per cent in 1895, and the investment in bank stock, representing 6.22 per cent in 1895, was 7.55 in 1890. Therefore, notwithstanding the depression beginning in 1893, the loans on real estate, which naturally form the largest part of the assets and may be termed one of the leading features of the savings banks system, show an equality or an increase, and the loans on personal security, a material decline. For the single year 1894, following the period of lowest depression, the cash on hand formed

a larger percentage of assets than at any other time. During the same year also, the loans on personal security formed a lower percentage than is found in any other year; but, on the whole, considering the adverse circumstances that have surrounded the towns and cities in Massachusetts since 1893, the operations of the institutions which so largely control the savings of the people have been remarkably uniform.

EDITORIAL.

THE REASONS FOR A "LABOR BULLETIN."

The Bureau of Statistics of Labor was authorized by Chapter 290, of the Acts of 1895, to issue a Bulletin at such regular intervals as it might deem advisable. Although the Department has collected and now holds matter which may legitimately appear in such a document, the publication of the first number has been unavoidably delayed on account of the progress of the Decennial Census, which has absorbed the resources of the office since May, 1895.

The present issue is preliminary, both in form and scope. The Bureau frequently collects, and is often asked to supply to its correspondents, information of a statistical character respecting the industrial and social conditions of the Commonwealth, which are hardly appropriate for publication in its annual reports, and the value of which would be much enhanced if given a wider circulation. A quarterly Bulletin affords a convenient means of publishing such information. At certain periods the publication of data as to the state of employment in our industrial centres would be timely and of value.

Other statistical matter relating to the condition of our industries and to the welfare of our industrial population may be included, thus increasing the interest and usefulness of the Bulletin.

Similar information is issued monthly by the English Department of Labor, by the Department of Labor in New Zealand, by other foreign Bureaus, and bi-monthly by the United States Department of Labor at Washington. This involves, of course, simply an extension of work legitimately within the field already occupied by the Bureau in Massachusetts. It is intended to include within the pages of the Bulletin such brief condensed statements, excluding irrelevant or unnecessary details, as will enable the reader to grasp the essential points relating to the subjects treated. It is expected that these issues will be found useful in promoting knowledge of those conditions which, to use the language of the original resolve establishing the Bureau, especially relate "to the commercial, industrial, social, educational, and sanitary condition of the laboring classes, and to the permanent prosperity of the productive industries of the Commonwealth."

THE STATE CENSUS OF 1895.

By a provision of the Census Law (Chap. 224, Acts of 1894), the Census volumes are originally issued in Parts. When a sufficient number of parts have been issued to form a proper-sized volume, they are bound up and are ready for distribution in accordance with the terms of the Census Law.

The Bureau supplies the newspapers from its Part Edition and also persons desiring the information supplied. It has on hand a limited number of Census Parts which will be forwarded by mail on receipt of postage stated, or will be sent by express, the charges to be paid by the recipient.

We append an index of each Part, so far issued, and the postage charges on same. In ordering, please address, Bureau of Statistics of Labor, 20 Beacon Street, Boston, Mass.

PART 1, 68 pages. *Postage 4 cents.*

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PART 5, 75 pages. *Postage 4 cents.*

Native and foreign born. Color and race. Conjugal condition. Soldiers, sailors, and marines. Tabular analyses.

LABOR CHRONOLOGY.

In the Report for 1893 was commenced the publication of a Part entitled Labor Chronology. It contains information for the year covered by the report, arranged by months and days, relating to Hours of Labor, Wages, and Trades Unions. In addition each Part contains the labor legislation for the year succeeding that covered by the chronology: that is, the Labor Chronology for 1893 contains the labor laws of 1894. The three Parts (1893, 1894, and 1895) will be sent by mail upon receipt of six cents in stamps to prepay postage.

LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 2.

APRIL.

1897.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDOIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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OF THE

BUREAU OF STATISTICS OF LABOR.

[Those publications which are in print, at present, have the postage on same indicated, and will be forwarded by mail, on receipt of postage stated, or they will be sent by express at the expense of the recipient. Those publications, for which no postage rates are given, are *out of print*. All of these volumes, however, may be found and consulted in town and city public libraries. They can also be found in the Public Document Series which is sent to every city and town. In this Series, the Bureau Report is No. 15, and the Annual Statistics of Manufactures is No. 26. Only the annual issues of the Bureau, are included in accompanying list, the Census volumes for 1875, 1890, 1895, and 1899, and special reports, being omitted. They can be found in the city and town public libraries.]

ANNUAL REPORTS OF THE BUREAU.

FIRST ANNUAL REPORT. 1870. pp. 423.

Not divided into Parts. The following subjects were considered: Labor and its attendant legislation; cotton manufacturing; agricultural labor; labor and legislation in Massachusetts; origin of labor movement; origin and development of industrial questions; factory system; testimony, at hearings before the Bureau; children in factories, their employment and schooling; the wage system and its results; homes of low-paid laborers in the city of Boston; homes of the middle class; intemperance; together with an appendix containing replies to blanks, extracts therefrom, testimony and remarks, with statistical tables; summary of laws relating to labor, and catalogue of books upon labor.

SECOND ANNUAL REPORT. 1871. pp. 655.

Not divided into Parts. The following subjects were considered: Combination; combination by guilds; combinations by trades-unions; strikes; strikes in Massachusetts; wages and earnings in agriculture, fisheries, land and water travel and transportation, domestic labor and women's work, industrial occupations, and mechanical trades; cost of living; co-operation; work and home life of factory operatives, their earnings, etc.; children in factories; half-time schools; hours of factory labor; facts bearing on the ten-hour argument; hours of labor in Europe; tenement houses, or homes of low-paid laborers in Boston; poverty; intemperance; hours of labor; statements and experiences of workmen; friendly societies.

THIRD ANNUAL REPORT. 1872. pp. 598.

Not divided into Parts. The following subjects were considered: Wages and earnings in agriculture, commercial, industrial, and mechanical occupations, and domestic labor and women's work (see Report for 1871); hours of labor; cost of living; workmen's statistics; savings banks; condition of operatives in factory towns; Chinese labor; truck system; accidents; strikes; homes of the working classes; schools for factory children; education and half-time schools; purchasing power of wages.

FOURTH ANNUAL REPORT. 1873. pp. 522.

Not divided into Parts. The following subjects were considered: Wages and earnings; cost of living; savings and savings banks; ownership of property; co-operation; education; poverty; hours of labor.

FIFTH ANNUAL REPORT. 1874. pp. 292.

- Part I. — Education and employment of young persons and children, and digest of American and European laws relative to the subject.
- Part II. — Relative to professional men.
- Part III. — The sanitary condition of working people in their homes and employments.
- Part IV. — Comparative rates of wages and hours of labor in Massachusetts and foreign countries.
- Part V. — Condition of textile fabric manufactories in Massachusetts, and digest of laws relative to machinery and sanitary matters.
- Part VI. — Prices of provisions, clothing, rent, etc., in Massachusetts and Europe; purchasing power of money.
- Part VII. — Savings Banks.
- Part VIII. — Statistics relating to Massachusetts from the U. S. Census of 1870.
 - Increase in wages in cotton, woollen, and worsted mills; 1861 compared with 1873.
 - Comparative table, showing cost of groceries, provisions, and articles of clothing and dry goods, in 1861 and 1873.
 - Cost of living table. Massachusetts and foreign countries.
 - Homes for women.

SIXTH ANNUAL REPORT. 1875. pp. 513.

- Part I. — The education of working children.
- Part II. — Special effects of certain forms of employment upon female health.
- Part III. — Factory legislation.
- Part IV. — Condition of workmen's families.
- Part V. — Co-operation.

MASSACHUSETTS LABOR BULLETIN.

No. 2.

APRIL.

1897.

STRIKES AND LOCKOUTS.

In the report of the Bureau for 1880 the history of strikes and lock-outs in Massachusetts from 1825 to 1879, inclusive, was presented, and in the report for 1888 was carried forward to December 31, 1886. We shall now bring the record down to June 30, 1894, using for that purpose data collected by the Department of Labor of the United States,* covering the period of seven and one-half years, beginning with January 1, 1887.

STRIKES.

The first presentation follows, relating to strikes by years.

Strikes in Massachusetts: By Years.

YEARS.	Total Strikes	ORDERED BY LABOR ORGANIZATION		ESTABLISHMENTS				DAYS UNTIL STRIKERS WERE RE-EMPLOYED OR PLACES FILLED BY OTHERS	
		Yes	No	Number	Number closed	Aggregate Days closed	Average Days closed	Aggregate	Average
1886,	1	1	-	9	5	245	49.0	1,008	112.0
1887,	b 133	b 62	b 71	b 343	b 145	b-c 1,924	b-c 13.4	b-c 5,302	b-c 15.5
1888,	95	60	35	167	64	1,855	29.0	5,407	32.4
1889,	123	69	54	266	91	1,246	13.7	6,381	24.0
1890,	146	96	50	510	190	c 7,553	c 40.0	c 17,545	c 34.5
1891,	135	68	67	234	62	c 911	c 14.9	c 3,426	c 14.7
1892,	154	82	72	438	267	4,733	17.7	8,863	20.2
1893,	169	97	72	372	151	1,896	12.6	5,371	14.4
1894 (6 months), . .	94	57	37	114	32	441	13.8	2,258	19.8
TOTALS,	b 1,050	b 592	b 458	b 2,453	b 1,007	b-g 20,804	b-g 20.7	b-g 55,561	b-g 22.7

Strikes in Massachusetts: By Years — Concluded.

YEARS.	ESTABLISHMENTS IN WHICH STRIKES —			EMPLOYEES' —		Loss of Employers
	Succeeded	Succeeded Partly	Failed	Wage Loss	Assistance	
1886,	-	-	9	\$483,075	(a)	\$103,000
1887,	b 108	b 70	b 165	b 962,985	b-d \$168,047	b 476,133
1888,	77	10	80	381,944	e 55,674	210,994
1889,	54	36	176	e 561,602	50,544	e 156,789
1890,	239	14	257	524,185	106,304	311,109
1891,	75	64	95	197,331	16,324	e 123,980
1892,	239	26	173	651,458	88,081	195,559
1893,	209	32	131	288,112	37,303	f 146,307
1894 (6 months), . .	47	8	59	510,896	51,140	215,237
TOTALS,	b 1,048	b 260	b 1,145	b-e \$4,561,588	b-e \$573,417	b-h \$1,939,108

a Included in assistance paid in 1887.

b Not including one strike undertaken in connection with a general strike of December 5, 1887, originating at Pittsburg, Pa.

c Not including one establishment closed permanently.

d Including assistance given in a strike begun December 13, 1886.

e Not including one establishment not reporting.

f Not including three establishments not reporting.

g Not including three establishments closed permanently. h Not including five establishments not reporting.

* Tenth annual report of the Commissioner of Labor.

It should be noted that the single strike, ascribed to the year 1886 in this presentation was started late in that year, and was pending January 1, 1887, when the period of seven and one-half years actually begins. This strike is therefore included in this table and also in those which follow, although the facts relating to it are given separately.

In all, 1,050 strikes appear. Besides these, there occurred during the period covered by the presentation 101 minor disturbances, of less than one day's duration, which may perhaps be classed as strikes in embryo, but, being speedily settled, were not of sufficient importance to be included. These were found in the following industries:

INDUSTRIES.	Number	INDUSTRIES.	Number
Boots and shoes,	14	Printing and publishing,	4
Brick,	1	Public works construction,	2
Building trades,	11	Railroad car building,	1
Carriages and wagons,	1	Rope and bagging,	1
Clothing,	4	Rubber goods,	1
Cooperage,	1	Stone quarrying and cutting,	1
Cotton goods,	13	Telegraphy,	3
Domestic service,	10	Transportation,	12
Furniture,	3	Woollen and worsted goods,	4
Leather and leather goods,	1	Miscellaneous,	8
Metals and metallic goods,	3		
Paper and paper goods,	2	TOTAL,	101

Of the 1,050 strikes which were of sufficient importance to be included in the presentation, 592 were ordered by labor organizations, while 458, nearly one-half the whole number, were not thus ordered. In the aggregate, 2,453 establishments were involved, of which 1,007 were closed for a number of days aggregating 20,804, or an average of 20.7 days, in all about three weeks' loss of productive time, to each establish-

Strikes in Massachusetts: By Years — Employés.

	YEARS.	EMPLOYES BEFORE STRIKE			EMPLOYES FOR WHOM STRIKE WAS UNDERTAKEN		
		Males	Females	Total	Males	Females	Total
1	1886,	1,607	393	2,000	1,152	99	1,251
2	1887,	a 40,576	a 14,588	a 55,164	a 10,669	a 2,233	a 12,902
3	1888,	22,594	36,588	5,208	1,389	6,597	
4	1889,	26,491	22,675	49,166	8,471	6,560	15,031
5	1890,	26,621	7,909	34,530	10,455	593	11,048
6	1891,	23,275	12,640	35,915	6,486	656	7,142
7	1892,	35,794	22,987	58,781	8,184	1,721	9,905
8	1893,	25,085	16,899	41,984	6,053	931	6,984
9	1894 (6 months),	20,951	11,348	32,299	4,789	2,452	7,241
10	TOTALS,	a 222,994	a 123,433	a 346,427	a 61,467	a 16,634	a 78,101

a Not including one strike undertaken in connection with a general strike of December 5, 1887, originating at Pittsburg, Pa.

Summarizing the results of this presentation we find that, as a whole, the number of employés before the strikes were undertaken was 346,427.

ment. Upon the whole, 55,561 days elapsed before the strikers were re-employed or their places filled, an average of 22.7 days to each establishment. In the case of 1,048 establishments the strikes succeeded, partial success was won in 260 others, while in 1,145, or about 47 in every 100 of the whole number of establishments, the strikes failed.

The aggregate wage loss to employ  s, due to idleness on account of the strikes, was \$4,561,588. The assistance rendered by labor organizations to the strikers amounted to \$573,417; while the loss to employers is placed at \$1,939,108. The computation of wage loss is based upon the number of employ  s thrown out of employment, their average wages, and the number of days that elapsed before they were again employed. The employers' losses were estimated by the firms concerned, and in both cases the utmost care and revision were exercised to ensure accuracy. Nevertheless, such figures must be considered approximate rather than absolute. The aid furnished the strikers is doubtless below rather than above the actual amount, and no account is taken of aid which in many cases was furnished by sympathizers outside the labor organizations.

The year 1893, which it will be remembered was the beginning of a period of industrial depression, accompanied by reductions in wages and diminished employment, is the year in which the largest number of strikes is found: but the largest wage loss, due to idleness caused by strikes, appears in the year 1887, and, next to this, is found in the year 1892. The greatest loss to employers was also felt in 1887, and in the same year the largest amount of assistance was furnished to strikers by labor organizations. Judging from the pecuniary elements involved, the strikes of 1887 appear to have been most severe.

The next presentation relates particularly to the number of employ  s directly involved in each year and in the aggregate for the entire period.

Strikes in Massachusetts: By Years — Employ  s.

STRIKERS			EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKE			NEW EMPLOYEES AFTER STRIKE				
Males	Females	Total	Males	Females	Total	Males	Females	Total	Brought from Other Places	
1,486	302	1,788	1,506	343	1,849	525	25	550	418	1
<i>a</i> 12,086	<i>a</i> 2,804	<i>a</i> 14,890	<i>a</i> 18,980	<i>a</i> 6,736	<i>a</i> 25,716	<i>a</i> 2,907	<i>a</i> 464	<i>a</i> 3,371	<i>a</i> 2,242	2
5,781	1,807	7,588	9,595	3,879	13,474	1,096	76	1,172	470	3
8,790	6,765	15,555	13,777	12,987	26,764	1,724	202	2,016	1,224	4
10,195	816	11,011	13,239	1,838	15,077	1,900	201	2,101	686	5
7,392	854	8,246	8,717	1,801	10,518	1,023	164	1,187	275	6
8,878	2,075	10,953	10,712	3,098	13,810	1,813	144	1,957	926	7
6,790	1,129	7,919	9,403	3,733	13,186	1,509	191	1,700	405	8
5,323	3,004	8,327	8,146	6,006	14,152	1,456	444	1,900	1,224	9
<i>a</i> 66,721	<i>a</i> 19,556	<i>a</i> 86,277	<i>a</i> 94,075	<i>a</i> 40,471	<i>a</i> 134,546	<i>a</i> 13,953	<i>a</i> 2,001	<i>a</i> 15,954	<i>a</i> 7,870	10

a Not including one strike undertaken in connection with a general strike of December 5, 1887, originating at Pittsburg, Pa.

The strikes were begun on account of 78,101 employ  s, or 22.54 per cent of the whole number. The male employ  s constituted 64.37 per cent of

the whole number employed, but of the employ  s in behalf of whom the strike was undertaken, 78.70 per cent were males. The actual strikers numbered in the aggregate, for the entire period, 86,277, of whom 77.33 per cent were males; and there were 134,546 employ  s, of whom 69.92 per cent were males, thrown out of employment by the strikes. There were 15,954 new employ  s after the strikes were over of whom 87.46 per cent were males, and of the whole number of new employ  s 7,870 were brought in from other places. We have noted that the largest number of strikes in any single year is found in 1893, but, on the other hand, we now discover that a comparatively small, although not the smallest, number of employ  s (13,186), was thrown out of employment by strikes in that year, the largest number in any one year (26,764) was found in 1889, while the next largest number (25,716) appears in 1887, the year in which the largest pecuniary losses occurred.

Of the 1,050 strikes which are reported for the entire period under consideration, 503, or 47.90 per cent occurred in the four cities, Boston, Lynn, Fall River, and Haverhill. These, with the particular facts relating thereto, are shown in the following table:

CITIES, TOWNS, AND THE STATE.	Total Strikes	Estab- lishments	Employ��s thrown out of Em- ployment	Wage Loss of Employ��s	Assistance to Employ��s by Labor Organiza- tions	Loss of Employers
Boston,	257	911	25,574	\$800,882	\$173,564	\$589,982
Lynn,	100	110	4,027	147,028	9,871	86,488
Fall River,	95	156	30,232	500,264	22,429	118,319
Haverhill,	51	76	5,271	97,239	6,660	78,495
Other cities and towns,	547	1,200	69,442	3,016,175	360,893	1,065,824
THE STATE,	1,050	2,453	134,546	\$4,561,588	\$573,417	\$1,939,108

The Boston strikes numbered 257, and affected 911 establishments. On their account 25,574 persons were thrown out of employment, losing \$800,882 in wages, receiving \$173,564 in assistance, the strikes causing a loss of \$589,982 to employers. The pecuniary loss exceeds that shown in any single city. In this respect, however, Fall River stands next, the 95 strikes reported from that city involving 156 establishments, throwing

Strikes in Massachusetts: By Industries.

INDUSTRIES.	Total Strikes	ORDERED BY LABOR ORGANIZATION		ESTABLISHMENTS			
		Yes	No	Number	Number closed	Aggre- gate Days closed	Aver- age Days closed
1 Boots and shoes,	282	226	56	336	81	1,177	14.5
2 Brewing,	4	3	1	10	-	-	-
3 Brick,	6	-	6	7	4	15	3.8
4 Building trades,	131	102	29	934	440	9,773	22.2
5 Carpeting,	8	2	6	8	5	43	8.6

out 30,232 employes, who lost \$500,264 in wages and received \$22,429 in assistance. The employers' loss was \$118,319. The strikes in Lynn and Haverhill, numbered, respectively, 100 and 51; involved, respectively, 110 and 76 establishments, and threw out, respectively, 4,027 and 5,271 employes. In Lynn there was a loss in wages of \$147,028 and assistance amounting to \$9,871. In Haverhill the wage loss was \$97,239 and the assistance \$6,660. In Lynn and Haverhill, respectively, the employers' loss was \$86,488 and \$78,495.

In order to bring forcibly before the reader the exact proportion of the strikes which were successful, or partly successful, or which failed, as the outcome of the struggles in which these considerable pecuniary losses were incurred, the following analysis table is introduced:

YEARS.	Total Establishments Affected	NUMBER OF ESTABLISHMENTS IN WHICH STRIKES—			PERCENTAGES OF ESTABLISHMENTS IN WHICH STRIKES—		
		Succeeded	Succeeded Partly	Failed	Succeeded	Succeeded Partly	Failed
1886,	9	-	-	9	-	-	100.00
1887,	343	108	70	165	31.49	20.41	48.10
1888,	167	77	10	80	46.11	5.99	47.90
1889,	266	54	36	176	20.30	13.53	66.17
1890,	510	239	14	257	46.86	2.75	50.39
1891,	234	75	64	95	32.05	27.35	40.60
1892,	438	239	26	173	54.57	5.93	39.50
1893,	372	209	32	131	56.18	8.60	35.22
1894 (6 months),	114	47	8	59	41.23	7.02	51.75
TOTALS,	2,453	1,048	260	1,145	42.72	10.60	46.68

On the whole, about 43 strikes in every 100 (42.72 per cent) were wholly successful. There were about 11 in every 100 (10.60 per cent) which partly succeeded. On the other hand, about 47 in every 100 (46.68 per cent) were failures. The proportion of complete successes was greatest in 1893 (56.18 per cent), and next greatest in 1892 (54.57 per cent), while the proportion of complete failure was greatest in 1889* (66.17 per cent).

The next presentation compares the strikes by industries.

Strikes in Massachusetts: By Industries.

DAYS UNTIL STRIKERS WERE RE-EMPLOYED OR PLACES FILLED BY OTHERS		ESTABLISHMENTS IN WHICH STRIKES—			EMPLOYEES'—		Loss of Employers	
Aggregate	Average	Succeeded	Succeeded Partly	Failed	Wage Loss	Assistance		
6,085	18.1	105	39	189	<i>a</i> \$1,692,979	\$185,333	<i>b</i> \$615,079	1
57	5.7	1	1	8	23,899	17,271	16,325	2
25	4.0	-	-	7	1,035	-	435	3
21,756	23.3	415	118	401	333,233	<i>a</i> 64,008	186,308	4
72	9.0	1	2	5	18,239	-	1,255	5

a Not including one establishment not reporting.

b Not including three establishments not reporting.

* In this statement the single strike of 1886 is not considered. As this was a failure, there is 100 per cent of failure for that year. This, of course, is not representative, no other strikes in that year being taken into account.

Strikes in Massachusetts: By Industries—Concluded.

	INDUSTRIES.	Total Strikes	ORDERED BY LABOR ORGANIZATION		ESTABLISHMENTS			
			Yes	No	Number	Number closed	Aggre- gate Days closed	Aver- age Days closed
1	Carriages and wagons, . . .	5	3	2	66	54	594	11.0
2	Clothing,	99	64	35	141	92	<i>a</i> 961	<i>a</i> 10.6
3	Cooperage,	1	1	-	1	-	-	-
4	Cotton and woollen goods, . .	14	1	13	16	2	30	15.0
5	Cotton goods,	143	25	118	183	55	598	10.9
6	Domestic service,	1	-	1	1	-	-	-
7	Food preparations,	6	3	3	9	-	-	-
8	Furniture,	22	14	8	41	4	30	7.5
9	Glass,	<i>c</i> 6	<i>c</i> 6	(<i>c</i>)	<i>c</i> 6	(<i>c</i>)	(<i>c</i>)	(<i>c</i>)
10	Leather and leather goods, . .	22	15	7	24	8	<i>a</i> 149	<i>a</i> 21.3
11	Lumber,	1	-	1	1	1	6	6.0
12	Machines and machinery, . . .	11	4	7	33	15	418	27.9
13	Metals and metallic goods, . .	41	21	20	125	84	481	5.7
14	Musical instruments,	5	4	1	5	-	-	-
15	Paper and paper goods,	4	-	4	4	-	-	-
16	Printing and publishing, . . .	12	6	6	21	5	210	42.0
17	Public ways construction, . . .	14	2	12	18	11	46	4.2
18	Public works construction, . .	17	-	17	17	4	9	2.3
19	Rope and bagging,	1	-	1	1	-	-	-
20	Rubber goods,	10	6	4	10	3	124	41.3
21	Shipbuilding, etc.,	4	3	1	13	-	-	-
22	Silk goods,	8	2	6	8	2	51	25.5
23	Stone quarrying and cutting, . .	56	47	9	259	74	<i>a</i> 3,843	<i>a</i> 52.6
24	Telegraphy,	2	-	2	2	-	-	-
25	Tobacco,	15	14	1	31	23	1,531	66.6
26	Transportation,	18	4	14	23	8	20	2.5
27	Trunks and valises,	1	-	1	1	1	7	7.0
28	Watches,	1	-	1	1	-	-	-
29	Woollen goods,	9	4	5	9	3	6	2.0
30	Woollen and worsted goods, . .	42	4	38	43	15	308	20.5
31	Miscellaneous,	28	6	22	45	13	374	28.8
32	TOTALS,	<i>c</i> 1,050	<i>c</i> 592	<i>c</i> 458	<i>c</i> 2,453	<i>c</i> 1,007	<i>c-d</i> 20,804	<i>c-d</i> 20.7

a Not including one establishment closed permanently.*b* Not including one establishment not reporting.

The Boot and Shoe industry leads all others in number of strikes (282), Cotton Goods stands next with 143, and the Building Trades next with 131. In Clothing we find 99, and in Stone Quarrying and Cutting 56, no other single industry having more than 50 during the seven and one-half years, although Woollen Goods approaches this limit with 42.

The largest wage loss is in Boots and Shoes, \$1,692,979; Cotton Goods following with \$565,806; Stone Quarrying and Cutting with \$546,149; the Building Trades with \$333,233, and Cotton and Woollen Goods with \$267,195. The Clothing industry, which was among those having a comparatively large number of strikes, shows a comparatively small wage loss, \$78,176, due, of course, to the lower wage scale prevailing in that industry. The largest amount of assistance was furnished in Boots and Shoes, \$185,333, considerably beyond that supplied in any other industry; Stone Quarrying and Cutting standing next with \$78,847. In Boots and Shoes, also, the employers suffered the greatest loss,

Strikes in Massachusetts: By Industries — Concluded.

DAYS UNTIL STRIKERS WERE RE-EMPLOYED OR PLACES FILLED BY OTHERS		ESTABLISHMENTS IN WHICH STRIKES —			EMPLOYEES' —		Loss of Employers	
Aggregate	Average	Succeeded	Succeeded Partly	Failed	Wage Loss	Assistance		
1,136	17.2	59	1	6	21,675	852	15,422	1
<i>a</i> 2,340	<i>a</i> 16.7	107	4	30	78,176	7,140	21,399	2
1	1.0	-	-	1	484	-	11	3
526	32.9	1	2	13	267,195	24,975	101,050	4
2,125	11.6	54	10	119	565,806	35,220	<i>b</i> 137,900	5
2	2.0	1	-	-	90	-	500	6
674	74.9	-	1	8	73,088	8,800	53,600	7
544	13.3	9	3	29	72,840	2,120	39,725	8
<i>c</i> 206	<i>c</i> 34.3	<i>c</i> 2	(<i>c</i>)	<i>c</i> 4	<i>c</i> 44,227	<i>c</i> 12,825	<i>c</i> 3,750	9
<i>a</i> 432	<i>a</i> 18.8	9	3	12	96,288	9,671	53,484	10
91	91.0	-	-	1	11,250	-	9,000	11
736	22.3	13	10	10	127,213	6,335	84,279	12
1,647	13.2	30	31	64	78,452	25,962	33,575	13
68	13.6	-	1	4	15,902	8,250	2,000	14
11	2.8	1	-	3	699	-	-	15
353	16.8	3	-	18	30,034	4,080	13,525	16
80	4.4	12	-	6	5,077	-	550	17
58	3.4	8	2	7	21,784	-	24,187	18
3	3.0	-	-	1	15	-	-	19
658	65.8	1	3	6	109,794	23,100	29,900	20
305	23.5	4	-	9	14,467	-	6,567	21
391	48.9	1	-	7	52,376	-	35,875	22
<i>a</i> 11,725	<i>a</i> 45.4	153	20	86	546,149	78,847	<i>b</i> 177,342	23
4	2.0	1	-	1	313	-	200	24
1,779	57.4	22	-	9	92,943	41,104	74,750	25
113	4.9	4	1	18	40,038	13,888	104,283	26
7	7.0	-	-	1	108	-	-	27
1	1.0	-	-	1	50	-	-	28
78	8.7	4	-	5	2,082	360	475	29
592	13.8	17	3	23	64,651	1,075	49,062	30
877	19.5	7	5	33	58,934	2,200	46,695	31
<i>c-d</i> 55,561	<i>c-d</i> 22.7	<i>c</i> 1,048	<i>c</i> 260	<i>c</i> 1,145	<i>b-c</i> \$4,561,588	<i>b-c</i> \$573,417	<i>c-e</i> \$1,939,108	32

c Not including one strike undertaken in connection with a general strike of December 5, 1887, originating at Pittsburg, Pa.

d Not including three establishments closed permanently.

e Not including five establishments not reporting.

\$615,679, no other industry approaching this figure, the Building Trades coming next, with \$186,308; and Stone Quarrying and Cutting next, with \$177,342. Measuring these difficulties by the pecuniary loss involved, it would seem that Boots and Shoes, Cotton Goods, Stone Cutting and Quarrying, Building, and Cotton and Woollen Goods were affected most seriously.

In Boots and Shoes there were 336 establishments affected by the strikes. In 108 the strikes succeeded, in 39 they were partly successful, and in 189 they failed. In Cotton Goods there were 183 establishments affected, and in these there were 54 successes, 10 partial successes, and 119 failures. In Stone Quarrying and Cutting 259 establishments were involved. The strikes succeeded in 153, partly succeeded in 20, and failed in 86. In Building 934 establishments were affected. In 415 the strikes succeeded, in 118 others partly succeeded, and in 401 failed. The number of establishments involved in Cotton and Woollen Goods

was 16. In these, there were 13 failures, two partial successes, and one complete success.

Strikes in Massachusetts: By Industries — Employés.

	INDUSTRIES.	EMPLOYÉS BEFORE STRIKE			EMPLOYÉS FOR WHOM STRIKE WAS UNDERTAKEN		
		Males	Females	Total	Males	Females	Total
1	Boots and shoes,	49,648	18,909	68,557	10,409	1,888	12,297
2	Brewing,	465	-	465	183	-	183
3	Brick,	255	-	255	202	-	202
4	Building trades,	17,220	4	17,224	9,460	-	9,460
5	Carpeting,	4,340	5,970	10,310	446	511	957
6	Carriages and wagons,	1,002	2	1,004	846	-	846
7	Clothing,	3,573	4,112	7,685	2,006	879	2,885
8	Cooperage,	19	-	19	11	-	11
9	Cotton and woollen goods,	16,599	18,642	35,241	1,713	1,953	3,666
10	Cotton goods,	51,174	64,737	115,911	7,564	8,892	16,456
11	Domestic service,	36	12	48	15	-	15
12	Food preparations,	1,283	2	1,285	150	-	150
13	Furniture,	10,362	1,088	11,450	2,083	20	2,103
14	Glass,	a 875	a 69	a 944	a 322	(a)	a 322
15	Leather and leather goods,	2,224	2	2,226	1,992	-	1,992
16	Lumber,	125	-	125	100	-	100
17	Machines and machinery,	4,754	30	4,784	1,781	-	1,781
18	Metals and metallic goods,	10,407	278	10,685	2,357	24	2,381
19	Musical instruments,	975	-	975	134	-	134
20	Paper and paper goods,	308	231	629	43	25	68
21	Printing and publishing,	1,332	491	1,823	267	-	267
22	Public ways construction,	2,806	-	2,806	593	-	593
23	Public works construction,	4,113	1	4,114	3,265	-	3,265
24	Rope and bagging,	205	225	430	-	5	5
25	Rubber goods,	1,687	1,645	3,332	719	580	1,299
26	Shipbuilding, etc.,	614	-	614	243	-	243
27	Silk goods,	470	1,456	1,926	242	691	933
28	Stone quarrying and cutting,	11,252	6	11,258	7,182	-	7,182
29	Telegraphy,	446	81	527	210	-	210
30	Tobacco,	1,125	153	1,278	919	106	1,025
31	Transportation,	13,124	12	13,136	2,211	-	2,211
32	Trunks and valises,	12	-	12	12	-	12
33	Watches,	110	90	200	1	-	1
34	Wooden goods,	244	4	248	178	-	178
35	Woollen and worsted goods,	5,746	4,216	9,962	925	660	1,585
36	Miscellaneous,	3,974	965	4,939	2,683	400	3,083
37	TOTALS,	a 222,994	a 123,463	a 346,427	a 61,467	a 16,634	a 78,101

a Not including one strike undertaken in connection with a general strike of December 5, 1887, originating at Pittsburg, Pa.

In Cotton Goods 40,295 employés were thrown out of employment on account of strikes undertaken in behalf of 16,456 employés by 18,825 actual strikers. The peculiar character of this industry is shown by the fact that only 703 new employés found employment by the strikes, only 28 of whom were brought in from other places. The number of persons thrown out of employment in Boots and Shoes was 28,831. The total number of employés in whose behalf these strikes were undertaken in this industry was 12,297, and after the strikes were over 5,277 new employés had found work, of whom 2,966 were brought in from other places. In this industry there were but 1,888 females for whom the strikes were

As to the direct effect upon the numbers of persons employed by industries the following presentation is conclusive :

Strikes in Massachusetts: By Industries — Employés.

STRIKERS			EMPLOYEES THROWN OUT OF EMPLOYMENT BY STRIKE			NEW EMPLOYEES AFTER STRIKE				
Males	Females	Total	Males	Females	Total	Males	Females	Total	Brought from Other Places	
13,818	3,000	16,818	22,346	6,485	28,831	4,517	760	5,277	2,966	1
173	-	173	173	-	173	145	-	145	122	2
202	-	202	210	-	210	14	-	14	-	3
9,689	-	9,689	11,811	-	11,811	2,038	-	2,038	918	4
453	609	1,062	1,877	2,248	4,125	41	-	41	-	5
846	-	846	846	-	846	35	-	35	-	6
2,247	1,023	3,270	2,422	1,414	3,836	120	72	192	24	7
11	-	11	11	-	11	11	-	11	-	8
1,713	1,953	3,666	2,777	3,460	6,237	695	321	1,016	804	9
8,760	10,065	18,825	18,011	22,284	40,295	325	378	703	28	10
15	-	15	15	-	15	-	-	-	-	11
150	-	150	697	-	697	260	-	260	38	12
2,352	20	2,372	2,847	24	2,871	191	-	191	8	13
<i>a</i> 408	(<i>a</i>)	<i>a</i> 408	<i>a</i> 411	(<i>a</i>)	<i>a</i> 411	<i>a</i> 135	(<i>a</i>)	<i>a</i> 135	<i>a</i> 98	14
926	-	926	1,160	-	1,160	217	-	217	162	15
100	-	100	125	-	125	50	-	50	-	16
2,156	-	2,156	2,317	-	2,317	250	-	250	86	17
2,393	24	2,417	2,739	48	2,787	500	18	518	293	18
134	-	134	134	-	134	66	-	66	24	19
43	25	68	48	30	78	36	14	50	-	20
366	-	366	397	50	447	82	5	87	44	21
619	-	619	631	-	631	257	-	257	72	22
3,289	-	3,289	3,314	-	3,314	352	-	352	225	23
-	5	5	-	5	5	-	-	-	-	24
741	580	1,321	1,422	1,064	2,486	77	93	170	48	25
243	-	243	245	-	245	100	-	100	-	26
289	972	1,261	331	1,112	1,443	40	131	171	120	27
7,236	-	7,236	7,726	-	7,726	1,216	-	1,216	810	28
210	-	210	210	-	210	-	-	-	-	29
934	119	1,053	1,043	133	1,176	247	46	293	51	30
2,211	-	2,211	2,226	-	2,226	1,094	-	1,094	819	31
12	-	12	12	-	12	3	-	3	-	32
-	5	5	-	5	5	-	2	2	-	33
202	-	202	209	-	209	77	-	77	-	34
1,092	736	1,828	2,529	1,679	4,208	310	156	466	93	35
2,688	420	3,108	2,803	430	3,233	452	5	457	17	36
<i>a</i> 66,721	<i>a</i> 19,556	<i>a</i> 86,277	<i>a</i> 94,075	<i>a</i> 40,471	<i>a</i> 134,546	<i>a</i> 13,953	<i>a</i> 2,001	<i>a</i> 15,954	<i>a</i> 7,870	37

a Not including one strike undertaken in connection with a general strike of December 5, 1887, originating at Pittsburg, Pa.

undertaken, and but 3,000 actual female strikers, although 6,485 females were thrown out by the strikes.

In the Building Trades 11,811 employés were thrown out, the actual number of strikers being 9,689, and the number in whose behalf the strike was started 9,460. The number of new employés who secured work was 2,038, of whom 918 came in from other places. In Stone Quarrying and Cutting, as in Building, the number thrown out of employment did not greatly differ from the number of actual strikers, or the number of those in whose behalf the strike was undertaken. These two industries reflect somewhat different conditions in this respect from

those which obtain in the distinctly factory industries, of which Boots and Shoes and Cotton Goods are types. In the Stone industry, for example, there were 7,236 actual strikers, all males, the number in whose behalf the strikes began was 7,182, and only 7,726 employ  s were thrown out of work. Even under these circumstances 1,216 new employ  s secured work. In Cotton and Woollen Goods the number of actual strikers reported is identical with the number of those in whose behalf the strike was undertaken, namely 3,666, indicating that no others than those immediately interested stopped work. By their action, however, 6,237 were thrown out of employment, and 1,016 new employ  s came in.

LOCKOUTS.

The Lockout differs from the Strike in respect to the proceedings under which it originates. When the difficulty is caused by the employ  s taking the initiative, and refusing to work in order that they may thus enforce their demands, the disturbance is called a strike. When, on the other hand, the employers refuse to permit employ  s to work unless under some obnoxious regulation, or unless some demand proceeding from the management is complied with, a lockout ensues. The results are much alike, however brought about, and the record of industrial disturbances is not complete without the facts relating to lockouts as well as to strikes. The following presentation exhibits the data as to lockouts during the period of seven and one-half years, already covered with respect to strikes:

Lockouts in Massachusetts: By Years.

YEARS.	Total Lockouts	ORDERED BY ORGAN- IZATION		ESTABLISHMENTS			
		Yes	No	Number	Number closed	Aggre- gate Days closed	Aver- age Days closed
1887,	9	2	7	113	53	145	2.7
1888,	5	-	5	5	1	7	7.0
1889,	7	-	7	22	20	514	25.7
1890,	12	2	10	56	29	3,970	136.9
1891,	10	-	10	10	6	92	15.3
1892,	8	1	7	147	54	1,526	44.9
1893,	6	-	6	11	1	42	42.0
1894 (6 months), . .	6	-	6	13	5	19	3.8
TOTALS,	63	5	58	377	149	6,315	42.4

Lockouts in Massachusetts: By Years — Concluded.

YEARS.	DAYS UNTIL EMPLOYEES LOCKED OUT WERE RE EMPLOYED OR PLACES FILLED BY OTHERS		ESTABLISHMENTS IN WHICH LOCKOUTS —			EMPLOYEES' —		Loss of Employers
	Aggregate	Average	Suc- ceeded	Suc- ceeded Partly	Failed	Wage Loss	Assistance	
1887,	3,979	35.2	32	15	66	\$76,812	\$6,750	\$58,666
1888,	115	23.0	5	-	-	11,710	2,350	7,000
1889,	533	24.2	3	-	19	80,918	4,329	45,625
1890,	6,370	113.8	45	-	11	a 365,523	a 44,600	256,795
1891,	640	64.0	5	2	3	22,795	1,777	32,050
1892,	15,692	106.7	10	111	26	555,702	108,444	140,065
1893,	379	34.5	3	-	8	36,350	3,000	1,300
1894 (6 months), . .	70	5.4	12	-	1	12,865	1,610	4,400
TOTALS,	27,778	73.7	115	128	134	a \$1,162,675	a \$172,860	\$539,901

a Including lockout of February 28, 1890.

The whole number of lockouts during the years named was 63, of which five were undertaken by direction of organizations of employers. They resulted in a closure of establishments aggregating 6,315 days, and, as 377 establishments were involved, 149 of these being closed, the average number of days closed to each establishment was 42.4. In the aggregate 27,778 days were lost before the locked-out employes were permitted to work, or their places were filled by others. Out of the 377 establishments affected, there were 115 in which the lockout succeeded, 128 in which partial success was reached, and 134 in which the lockout failed. The wage loss to employes was, in the aggregate, \$1,162,675, while they received assistance amounting to \$172,860. On the other hand, the employers' loss is placed at \$539,901. The next presentation shows the effect upon the number of persons employed.

Lockouts in Massachusetts: By Years — Employes.

YEARS.	EMPLOYES BEFORE LOCKOUT			EMPLOYES LOCKED OUT		
	Males	Females	Total	Males	Females	Total
1887,	4,025	1,446	5,471	3,718	1,437	5,155
1888,	630	92	722	137	-	137
1889,	1,840	142	1,982	1,644	45	1,689
1890,	5,063	1,590	6,653	3,394	1,137	4,531
1891,	1,372	639	2,011	950	415	1,365
1892,	6,298	850	7,148	3,268	705	3,973
1893,	1,233	1,155	2,388	203	131	334
1894 (6 months),	840	115	955	293	12	305
TOTALS,	21,301	6,029	27,330	13,607	3,882	17,489

Lockouts in Massachusetts: By Years — Employes — Concluded.

YEARS.	EMPLOYES THROWN OUT OF EMPLOYMENT BY LOCKOUT			NEW EMPLOYES AFTER LOCKOUT			
	Males	Females	Total	Males	Females	Total	Brought from Other Places
1887,	3,734	1,437	5,171	314	-	314	79
1888,	161	12	173	98	-	98	16
1889,	1,732	132	1,884	29	2	31	27
1890,	3,851	1,137	4,988	1,118	115	1,233	578
1891,	950	415	1,365	344	99	443	198
1892,	3,428	719	4,147	881	193	1,074	673
1893,	203	131	334	28	42	70	-
1894 (6 months),	402	27	429	202	-	202	139
TOTALS,	14,481	4,010	18,491	3,014	451	3,465	1,710

There were, in the aggregate, 27,330 employes in the establishments before the lockouts occurred. The number locked out was 17,489, and a slightly larger number, namely, 18,491, were on this account thrown out of employment. The number of new employes taken on was 3,465, of whom 1,710 were brought in from other places.

The next presentation shows the lockouts by industries.

Lockouts in Massachusetts: By Industries.

	INDUSTRIES.	Total Lockouts	ORDERED BY ORGAN- IZATION		ESTABLISHMENTS			
			Yes	No	Number	Number closed	Aggre- gate Days closed	Aver- age Days closed
1	Boots and shoes,	19	-	19	75	67	314	4.7
2	Building trades,	6	-	6	13	4	12	3.0
3	Clothing,	5	-	5	28	28	618	22.1
4	Cotton goods,	3	-	3	3	1	10	10.0
5	Furniture,	1	-	1	1	1	42	42.0
6	Glass,	1	-	1	1	-	-	-
7	Leather and leather goods,	6	1	5	33	22	943	42.9
8	Metals and metallic goods,	3	-	3	31	-	-	-
9	Musical instruments,	1	-	1	1	-	-	-
10	Printing and publishing,	2	-	2	2	-	-	-
11	Shipbuilding, etc.,	1	-	1	1	-	-	-
12	Stone quarrying and cutting,	8	4	4	176	23	4,357	189.4
13	Tobacco,	3	-	3	3	1	7	7.0
14	Woollen and worsted goods,	2	-	2	2	1	7	7.0
15	Miscellaneous,	2	-	2	7	1	5	5.0
16	TOTALS,	63	5	58	377	149	6,315	42.4

Of the whole number of lockouts during the period (63), 19, nearly one-third, occurred in the Boot and Shoe industry. The wage loss was greatest in Stone Quarrying and Cutting, where it amounted to \$614,913, next greatest in Leather and Leather Goods, \$315,254, after which we come to Boots and Shoes with a recorded wage loss of \$131,906. In Leather and Leather Goods the loss to employers on account of lockouts was \$232,300; in Stone Quarrying and Cutting \$191,386; and in Boots and

Lockouts in Massachusetts: By Industries — Employés.

	INDUSTRIES.	EMPLOYES BEFORE LOCKOUT			EMPLOYES LOCKED OUT		
		Males	Females	Total	Males	Females	Total
1	Boots and shoes,	7,400	3,470	10,870	5,861	2,821	8,682
2	Building trades,	393	-	393	242	-	242
3	Clothing,	711	529	1,240	711	529	1,240
4	Cotton goods,	1,295	1,657	2,952	484	525	1,009
5	Furniture,	100	-	100	100	-	100
6	Glass,	41	9	50	9	-	9
7	Leather and leather goods,	2,768	-	2,768	2,220	-	2,220
8	Metals and metallic goods,	2,445	129	2,574	105	-	105
9	Musical instruments,	400	-	400	80	-	80
10	Printing and publishing,	58	2	60	58	2	60
11	Shipbuilding, etc.,	6	-	6	5	-	5
12	Stone quarrying and cutting,	5,044	6	5,050	3,484	-	3,484
13	Tobacco,	100	35	135	33	-	33
14	Woollen and worsted goods,	355	192	547	95	5	100
15	Miscellaneous,	185	-	185	120	-	120
16	TOTALS,	21,301	6,029	27,330	13,607	3,882	17,489

Lockouts in Massachusetts: By Industries.

DAYS UNTIL EMPLOYEES LOCKED OUT WERE RE-EMPLOYED OR PLACES FILLED BY OTHERS		ESTABLISHMENTS IN WHICH LOCKOUTS —			EMPLOYEES' —		Loss of Employers	
Aggregate	Average	Succeeded	Succeeded Partly	Failed	Wage Loss	Assistance		
767	10.2	12	2	61	\$131,906	\$7,800	\$72,600	1
116	8.9	12	-	1	10,025	710	2,415	2
618	22.1	-	-	28	48,402	4,540	8,060	3
195	65.0	3	-	-	23,217	-	50	4
42	42.0	-	-	1	6,000	2,100	2,000	5
2	2.0	-	-	1	40	-	-	6
1,546	46.8	16	-	17	315,254	28,829	232,300	7
191	6.2	31	-	-	4,224	75	-	8
4	4.0	1	-	-	2,700	1,600	-	9
366	183.0	1	-	1	2,200	702	27,500	10
24	24.0	1	-	-	160	-	-	11
23,820	135.3	34	126	16	α 614,913	α 126,504	191,386	12
52	17.3	3	-	-	1,200	-	2,040	13
12	6.0	1	-	1	1,864	-	1,500	14
23	3.3	-	-	7	570	-	50	15
27,778	73.7	115	128	134	α \$1,162,675	α \$172,860	\$539,901	16

α Including lockout of February 23, 1890.

Shoes \$72,600. These three industries show the greatest pecuniary loss, all others being by comparison slightly affected, thus indicating the relative magnitude of the difficulties that have occurred in these industries. It will be remembered that two of them, Boots and Shoes and Stone Quarrying and Cutting were among those most seriously affected by strikes.

The final presentation exhibits the effect of lockouts upon the numbers employed, by industries.

Lockouts in Massachusetts: By Industries — Employés.

EMPLOYEES THROWN OUT OF EMPLOYMENT BY LOCKOUT			NEW EMPLOYEES AFTER LOCKOUT				
Males	Females	Total	Males	Females	Total	Brought from Other Places	
6,030	2,870	8,900	980	384	1,364	536	1
242	-	242	170	-	170	102	2
711	529	1,240	49	51	100	-	3
509	525	1,034	8	12	20	-	4
100	-	100	-	-	-	-	5
9	-	9	-	-	-	-	6
2,535	-	2,535	523	-	523	499	7
105	-	105	61	-	61	46	8
80	-	80	80	-	80	-	9
58	2	60	16	2	18	8	10
5	-	5	1	-	1	-	11
3,783	-	3,783	1,097	-	1,097	492	12
57	12	69	4	-	4	-	13
137	72	209	25	2	27	27	14
120	-	120	-	-	-	-	15
14,481	4,010	18,491	3,014	451	3,465	1,710	16

The largest numbers locked out, and the largest numbers thrown out of employment, are found in Boots and Shoes, Stone Quarrying and Cutting, and Leather and Leather Goods, these three industries ranking in the order named.

The period covered by this record of strikes and lockouts begins with years of exceptional industrial prosperity, includes a year of serious depression (1893), and closes at a time when the effect of the depression was still seriously felt. The great pecuniary loss to all connected with the disturbances, the large numbers thrown out of work during the trouble, the comparatively small number directly interested in the points at issue, and in whose behalf the strikes were begun, the large percentage of failure, — these give to the record a peculiar interest and significance.

From the point of view of the workmen, strikes are necessary, and they are, at any rate, manifestly unavoidable in certain exigencies. It is also held that although many strikes directly fail, they are always indirectly successful, inasmuch as through them attention is called to hard industrial conditions, which, under the pressure of public sentiment, are gradually improved. It appears plain, however, on the face of a record like this, that much ought to be conceded on both sides before such controversies reach the stage of actual warfare. The loss of industrial force is too great to be lightly risked. All of which has been said before, but apparently cannot be too often repeated.

PRISON INDUSTRIES IN MASSACHUSETTS.

The employment of prisoners in this Commonwealth, as in other States, has frequently been the subject of legislative inquiry and action. In 1878, the General Court, by a Resolve, approved April 6th, directed this Bureau to make a full investigation as to the kind and amount of work performed in the penal institutions of the State, and to report thereon, with suggestions as to legislation, to the next legislature.

Under this resolve inquiry was made in 19 different States, the subject being treated nationally, and much testimony of a statistical nature was secured; all of which formed the basis of a report submitted to the legislature in 1879.*

After a careful summary of the data, the following distinct recommendations were made:

1. A memorial to Congress for a thorough investigation of the subject, covering the whole country.

* Tenth Annual Report of the Bureau.

2. Legislation favoring the employment of prisoners on goods required in public institutions.

3. Limitation of number employed, in any one industry, or a limitation of products, so as to secure diversity of employment.

4. Wherever possible, farms to be carried on by prison labor, for the supply of the institutions.

5. No contracts, except after competition through public advertisement, and upon the approval of the Governor and Council. The Governor and Council to decide upon the expediency of introducing the manufacture of goods on the public account system, under certain conditions.

The subject still continued to attract the attention of the legislature, a joint committee was empowered to take testimony during the recess, and the Bureau also continued its investigations, reporting again in the Eleventh Annual Report (January, 1880). In this document full statistics were presented showing the number of persons employed in all the penal institutions of the United States, and three additional suggestions were made respecting legislation. These were :

1. Limitation of the number to be employed in any one branch in prisons to 10 per cent of the number employed in the same branch outside.

2. Prohibition of the use of power machinery in prison shops.

3. Abandonment of all idea of making the prisons self-supporting, and the employment of prisoners to be so directed as to foster skill and promote industrial training.

The suggestions were enforced by brief argument and explanation, as applicable to-day, in the general consideration of the subject, as when first published. The statistics contained in this report showed that 40,122 persons were at that time employed in the prisons of the United States, of whom 9,041 were under lease, 16,747 under contract, 9,404 working upon public account, and 4,930 engaged in prison duties. These did not include 800 boys who were inmates of an industrial school in Baltimore, of whom 300 were employed under contract, the others being occupied in various institutional duties. In Massachusetts, 2,333 convicts were employed in all the industries carried on in the penal institutions, the number of persons employed in the same industries outside being 159,755. That is, the number of prisoners employed in the institutions in Massachusetts at that time constituted about one and one-half per cent of the persons engaged on similar work outside.

In 1883 the number who might be employed in certain industries, namely, boots and shoes, hats, brushes, and wood mouldings was specifically limited, and the number who might be employed in any other industry was not to exceed 150.* In 1887, a comprehensive statute relating to the labor of prisoners in the State Prison, Reformatories, and Houses

* Chapter 217, Acts of 1883.

of Correction was enacted.* This prohibited contracts, placing the employment directly in the hands of the General Superintendent of Prisons, provided for sub-superintendents and instructors, arranged for the supply of tools, implements, and materials upon the public account system, prohibited new machinery and motive power, other than hand or foot power, established the office of General Superintendent of Prisons and fixed his duties. It was further provided that articles in common use in the several State and County institutions should, as far as possible, be made in the penal institutions, all other prison-made articles to be sold upon the public account system, at the ruling wholesale market prices.

The next legislature, however, provided that the words "contract for the labor of prisoners," which contracts had been abolished by this act, should not apply to contracts for the manufacture of articles on the "piece-price system," with persons who furnished the materials used in such manufacture;† authorized the printing industry as an employment in the State Prison, which had been prohibited by a provision of the Public Statutes,‡ and still further regulated the employment of prisoners, by limiting the number to be employed in any given industry to one-twentieth of the number employed in such industry in the State, except under certain specified conditions, and also except the employment, which was authorized, of 250 prisoners in the manufacture of brushes, upon the public account system, at the House of Correction at Cambridge. Other administrative provisions were enacted.§

In 1891 the replacement of worn or destroyed machinery was provided for, the purchase of new machinery authorized for use in new industries, and the number who might be employed on brushes at Cambridge as above specified was reduced to 50. || In 1894 the employment of prisoners in the manufacture of reed and rattan goods was limited to 75,¶ after the expiration of contracts then in force. Another phase of the subject is suggested in a statute passed in 1895, wherein the Commissioners of Prisons were authorized to "make rules from time to time * * * * to secure for unemployed sentenced prisoners" such exercises as would prevent injury to their health from their imprisonment; ** thereby indicating the difficulty of securing employment for all prisoners under the existing statutes.

Prison labor in Massachusetts is now conducted under the provisions of chapter 447 of the Acts of 1887 as modified by chapters 22 and 403 of the Acts of 1888, and other minor statutes, whose provisions have been summarized. Full details relating to the work of each year are given in the annual reports of the General Superintendent of Prisons. We shall now present a series of tables, collated from data contained in the vari-

* Chapter 447, Acts of 1887.

† Chapter 22, Acts of 1888.

‡ Chapter 189, Acts of 1888.

§ Chapter 403, Acts of 1888.

|| Chapters 228 and 371, Acts of 1891.

¶ Chapter 460, Acts of 1894.

** Chapter 146, Acts of 1895.

ous official reports since 1887, when the present method of employment was adopted, giving a complete view of the statistical side of the subject, in form convenient for yearly comparisons. The Report of the General Superintendent of Prisons is for recent years the best source of information of this character. In the early years, however, this document did not contain figures that may be paralleled with those presented subsequent to 1892. As we desire to cover the whole period, we are therefore obliged to rely upon the Reports of the Commissioners of Prisons; although the figures showing conditions at the close of each year, made up to the thirtieth day of September, vary somewhat, whenever presented in the two reports named, the discrepancies being due no doubt to differences in bookkeeping. The first table relates to the State Prison.

State Prison.

DATES	Total Number of Prisoners	NUMBER ENGAGED IN—		
		Productive Industries	Miscellaneous Prison Work	No Active Employment
September 30, 1887,	533	158	217	158
September 30, 1888,	564	391	138	35
September 30, 1889,	564	391	148	25
September 30, 1890,	580	356	198	26
September 30, 1891,	615	349	228	38
September 30, 1892,	656	375	248	33
September 30, 1893,	646	318	230	98
September 30, 1894,	666	465	161	40
September 30, 1895,	700	513	164	23
September 30, 1896,	796	571	185	40
Averages per year,	632	389	192	51

The total number of prisoners in the State Prison increased from 533 on September 30, 1887, to 796 on September 30, 1896; the number engaged in productive industries from 158 to 571; while the number engaged in miscellaneous prison work declined from 217 to 185; and the number having no active employment from 158 to 40. That is to say, at the date first named 29.64 per cent of the prisoners were productively employed while at the close of the period 71.73 per cent were productively employed.

The number employed, as shown in this and all subsequent tables, is the number as it stood on September 30, in each year. The number fluctuates more or less during the year, and a more representative figure would perhaps be that showing the average for the year. This, although presented in recent reports, cannot be obtained for the whole period, and in order that comparisons may be made upon substantially the same basis, we are obliged to use the number at work at the close of each year, which has always been reported. So far as can be discovered, this number is usually somewhat larger than the average, and the distribution of product per person, in the tables which follow, is therefore somewhat reduced

below the actual product per *average* person employed. This difference whenever it has been possible to trace it, is not very great, however, and may therefore be disregarded in our present consideration of the subject.

Besides certain miscellaneous employments, there are four industries which are of leading importance. These are the manufacture of brushes, harness, shoes, and trunks. The following table relates to the brush industry.

Brush Industry in State Prison.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	*8	*\$139.10	*\$17.39
September 30, 1888,	76	10,804.15	142.16
September 30, 1889,	64	22,877.62	357.46
September 30, 1890,	51	25,282.67	495.74
September 30, 1891,	42	19,221.14	457.65
September 30, 1892,	37	12,548.12	339.14
September 30, 1893,	55	11,799.38	214.53
September 30, 1894,	35	12,740.36	335.27
September 30, 1895,	40	16,514.54	412.86
September 30, 1896,	36	15,048.63	418.02
Averages per year,†	49	\$16,315.18	\$334.48

* Under contract.

† Excluding 1887.

Disregarding the figures for 1887 which are evidently exceptional, the number employed in this industry, although subject to considerable fluctuation from year to year, has materially declined. The amounts given in the table as "total receipts" and "average receipts per person employed" evidently require explanation. While they undoubtedly represent receipts for the year, in each case, it is plain that they do not cover exactly the product of the particular year specified. Otherwise we should conclude that the labor of 51 persons in 1890, for example, brought receipts of \$25,282.67 while in 1893 the labor of 55 persons returned only \$11,799.38, — the resulting averages per employé being equally dissimilar. The figures representing receipts are evidently yearly balances, the product of one year being sold in the next, or the receipts otherwise put out of relation with the exact product of the particular number of persons employed within the year named. Such variations may be to a great extent, if not entirely, eliminated by presenting averages covering the whole series of years. Taking the period as a whole therefore, (excluding 1887) the average number employed per year is 49,* the average yearly receipts, \$16,315.18, and the average receipts per year for each person \$334.48.

The next table relates to the manufacture of harness.

* Based upon number employed on Sept. 30, in each year, as previously explained.

Harness Industry in State Prison.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	*50	*\$2,711.56	*\$54.23
September 30, 1888,	95	4,129.60	43.47
September 30, 1889,	100	33,498.73	334.99
September 30, 1890,	91	32,190.98	353.75
September 30, 1891,	82	20,709.80	252.56
September 30, 1892,	92	24,880.17	270.44
September 30, 1893,	60	17,518.93	291.98
September 30, 1894,	54	19,021.93	352.26
September 30, 1895,	67	23,272.67	347.35
September 30, 1896,	65	23,219.98	357.23
Averages per year,	76	\$20,115.44	\$266.08

* Under contract.

In this industry also there is a decline in the number employed since 1888. The average number per year, taking the whole period into account, is 76, the average receipts per year, \$20,115.44, and the average receipts per person annually, \$266.08.

The next table presents the facts as to the shoe industry.

Shoe Industry in State Prison.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	-	\$7,494.34	-
September 30, 1888,	150	46,123.64	\$307.49
September 30, 1889,	150	94,564.20	630.43
September 30, 1890,	143	111,507.86	779.78
September 30, 1891,	148	72,591.46	490.48
September 30, 1892,	171	69,696.81	407.58
September 30, 1893,	162	53,685.12	331.39
September 30, 1894,	207	111,169.08	537.05
September 30, 1895,	229	147,012.42	641.98
September 30, 1896,	284	147,183.65	518.25
Averages per year,*	183	\$94,837.14	\$519.18

* Excluding 1887.

In this industry a material increase is noticeable. The data for 1887 are fragmentary. In 1888, 150 persons were engaged, and in 1896, 284. The average number employed per year during the period (excluding 1887) is 183, the average annual receipts, \$94,837.14, and the average annual receipts per person, \$519.18.

We next present the data relating to trunks.

Trunk Industry in State Prison.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	-	-	-
September 30, 1888,	-	-	-
September 30, 1889,	11	\$7,074.58	\$643.14
September 30, 1890,	11	10,936.19	994.20
September 30, 1891,	11	11,701.73	1,063.79
September 30, 1892,	11	9,622.91	874.81
September 30, 1893,	11	7,999.19	727.20
September 30, 1894,	3	7,785.88	2,595.29
September 30, 1895,	8	8,674.67	1,084.33
September 30, 1896,	14	6,750.24	482.16
Averages per year,*	10	\$8,818.17	\$881.82

* Excluding 1887 and 1888.

The year 1889 marks the beginning of the industry, which has not varied materially in its extent since that time, except in the year 1894, when only three persons were employed. The average number employed per year is 10, the average receipts per year, \$8,818.17, and the average receipts per employé per year, \$881.82.

The miscellaneous department industries are included in the following table :

*Other Department Labor in State Prison (including Gilding, Tinware, Wire Beds, *Rattan Work, and *Shirts).*

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	-	\$16,550.07	-
September 30, 1888,	70	15,142.09	\$216.32
September 30, 1889,	66	28,365.31	429.78
September 30, 1890,	60	22,001.08	366.63
September 30, 1891,	66	23,901.47	362.14
September 30, 1892,	64	20,346.48	317.91
September 30, 1893,	30	15,142.44	504.75
September 30, 1894,	163	6,015.69	36.92
September 30, 1895,	169	7,565.65	44.77
September 30, 1896,	172	7,979.37	46.39
Averages per year,†	96	\$16,273.62	\$170.31

* Occur only in 1894, 1895, and 1896.

† Excluding 1887.

These industries comprise gilding, the manufacture of tinware, wire beds, and beginning with the year 1894, rattan work and shirts. The average number employed per year, excluding 1887, for which the figures are not complete, is 96, the average annual receipts, \$16,273.62, and the average annual receipts per employé per year, \$170.31.

The next series of tables, five in number, relates to the Massachusetts Reformatory at Concord, the first presenting general statistics.

Massachusetts Reformatory.

DATES.	Total Number of Prisoners	NUMBER ENGAGED IN —		
		Productive Industries	Miscellaneous Prison Work	No Active Employment
September 30, 1887,	774	538	*236	-
September 30, 1888,	687	507	*180	-
September 30, 1889,	626	436	*190	-
September 30, 1890,	733	465	*268	-
September 30, 1891,	812	508	*304	-
September 30, 1892,	887	†-	†-	†-
September 30, 1893,	987	†-	†-	†-
September 30, 1894,	1,047	601	242	204
September 30, 1895,	1,011	581	213	217
September 30, 1896,	933	496	227	210
Averages per year,†	828	517	*233	-

* Includes "No active employment."

† Information not supplied.

‡ Excluding 1892 and 1893.

The statistics for this institution are somewhat incomplete and irregular. For the first five years the numbers engaged upon miscellaneous prison work and without active employment are combined, while information as to the number employed in the years 1892 and 1893 is lacking. There has been an increase in the number of prisoners, apparently without a material increase in the number productively employed. Leaving 1892 and 1893 out of consideration, the average number of prisoners per year is 828, the average number employed per year in productive industries, 517, and the average number per year engaged in miscellaneous prison work 233. During the last three years covered by the table, from 204 to 217 inmates have been without active employment.

The larger part of the inmates of the Reformatory are engaged in the shoe, chair, and clothing industries. The statistics of the shoe industry are contained in the next table.

Shoe Industry in Massachusetts Reformatory.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	150	-	-
September 30, 1888,	180	-	-
September 30, 1889,	174	\$19,352.22	\$111.22
September 30, 1890,	160	22,712.15	141.95
September 30, 1891,	142	13,977.58	98.43
September 30, 1892,	217	22,583.91	104.07
September 30, 1893,	268	33,059.16	123.36
September 30, 1894,	326	39,922.27	122.46
September 30, 1895,	250	41,070.74	164.28
September 30, 1896,	257	33,809.19	131.55
Averages per year,*	224	\$28,310.90	\$126.25

* Excluding 1887 and 1888.

Between the early and the later years an increase is noted in the number of prisoners employed; the average number for the entire period, excluding 1887 and 1888, being 224. The average annual receipts for the last eight years are \$28,310.90 and the average receipts per person employed per year, \$126.25. We next consider the chair industry.

Chair Industry in Massachusetts Reformatory.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	157	-	-
September 30, 1888,	165	-	-
September 30, 1889,	167	\$8,514.55	\$52.78
September 30, 1890,	220	8,668.62	39.40
September 30, 1891,	264	7,949.60	30.11
September 30, 1892,	256	10,470.35	40.90
September 30, 1893,	162	5,422.22	33.47
September 30, 1894,	258	13,034.10	50.52
September 30, 1895,	253	15,240.99	60.24
September 30, 1896,	219	11,645.68	53.18
Averages per year,*	225	\$10,155.75	\$45.16

* Excluding 1887 and 1888.

Here also an increase appears between the early and later years, but since 1890 the number employed has not greatly changed. In the year 1893 there was an exceptional decline. The average number per year for the last eight years is 225, the average receipts per year, during the same period, \$10,155.75, and the average receipts per person per year \$45.16. The next table relates to the clothing industry.

Clothing Industry in Massachusetts Reformatory.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	100	-	-
September 30, 1888,	80	-	-
September 30, 1889,	68	\$1,559.05	\$22.93
September 30, 1890,	75	14,610.99	194.81
September 30, 1891,	78	20,415.63	261.74
September 30, 1892,	86	24,205.38	281.46
September 30, 1893,	44	12,110.68	275.24
September 30, 1894,	-	5,889.60	-
September 30, 1895,	-	3.25	-
September 30, 1896,	-	-	-
Averages per year,*	70	\$15,758.92	\$224.49

* Excluding 1887, 1888, 1894, 1895, and 1896.

No persons are returned as employed in this industry since 1893. The average number per year prior to that date, excluding 1887 and

1888, was 70 ; the average receipts per year \$15,758.92 ; and the average receipts per person per year \$224.49.

The final table relating to this institution shows the statistics of those employed in other department labor.

Other Department Labor in Massachusetts Reformatory.

DATES.	Total Number Employed	Total Receipts	Average Receipts per Person Employed
September 30, 1887,	131	-	-
September 30, 1888,	82	-	-
September 30, 1889,	27	\$1,067.89	\$39.55
September 30, 1890,	10	461.59	46.16
September 30, 1891,	24	836.88	34.87
September 30, 1892,	-	-	-
September 30, 1893,	-	-	-
September 30, 1894,	17	1,163.17	68.42
September 30, 1895,	78	3,620.77	46.42
September 30, 1896,	20	8,668.91	433.45
Averages per year,*	29	\$2,636.54	\$89.88

* Excluding 1887, 1888, 1892, and 1893.

It is plain that outside the shoe, chair, and clothing industries very few persons are employed, the receipts, of course, being correspondingly small.

We next present in a single table the industrial statistics of the Reformatory Prison for Women.

Reformatory Prison for Women.

DATES.	Number of Prisoners	RECEIPTS FOR LABOR:			
		Machine Work	Laundry Work	Needle Work	Totals
September 30, 1887,	225	\$6,455.22	\$3,754.15	\$113.62	\$10,322.99
September 30, 1888,	242	6,328.66	2,854.10	49.12	9,231.88
September 30, 1889,	244	8,551.88	3,272.13	43.17	11,867.18
September 30, 1890,	242	8,822.00	3,346.09	32.65	12,200.74
September 30, 1891,	248	7,271.15	3,409.99	110.66	10,791.80
September 30, 1892,	292	8,330.75	3,270.13	86.33	11,687.21
September 30, 1893,	312	14,517.28	3,695.20	71.90	18,284.38
September 30, 1894,	323	10,753.40	3,626.51	65.15	14,445.06
September 30, 1895,	336	13,373.62	3,339.62	62.72	16,775.96
September 30, 1896,	350	7,902.43	3,159.41	112.51	11,174.35
Averages per year,	281	\$9,230.64	\$3,372.73	\$74.78	\$12,678.15

This table shows the whole number of prisoners at the end of each year, with the receipts per year for each industrial department, and in the aggregate. The averages are as follows: Number of prisoners, 281 ; receipts per year for machine work, \$9,230.64 ; for laundry work, \$3,372.73 ; for needle work, \$74.78 ; in the aggregate, \$12,678.15.

The only department in this prison conducted on the piece-price system so called, that is, by arrangement with outside employers, is that designated as machine work in the table, devoted chiefly to the manufacture of shirts.

The statistics relating to the industries conducted in the county penal institutions are next presented. Although the number of prisoners confined in the county jails are included in these tables, the receipts for labor are almost entirely from the Houses of Correction. The labor performed in the jails is of little account industrially, or as a source of income, and the law relating to prison industries does not apply to the jails. It should be understood therefore that only a part of the whole number of prisoners shown by the tables were productively employed. Thus, although the total number confined in these county institutions, September 30, 1896, was 4,339, the actual number employed at that time under the provisions of the prison industry law was 1,689, the average number for the year being 1,734.

Receipts for Labor: County Jails and Houses of Correction.

DATES.	BARNSTABLE		BERKSHIRE		BRISTOL		DUKES	
	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor
September 30, 1887, . .	10	-	82	-	250	-	-	-
September 30, 1888, . .	7	\$18.43	81	\$1,111.48	294	\$2,289.11	-	-
September 30, 1889, . .	10	56.14	103	1,448.17	319	3,054.48	-	-
September 30, 1890, . .	8	17.50	67	1,427.70	304	2,176.60	3	-
September 30, 1891, . .	7	68.60	94	1,219.37	267	3,447.01	-	-
September 30, 1892, . .	10	35.50	84	873.80	298	2,602.03	1	-
September 30, 1893, . .	13	19.50	79	1,540.73	355	2,019.03	-	-
September 30, 1894, . .	14	6.00	71	350.00	344	1,102.11	-	-
September 30, 1895, . .	14	4.50	104	90.67	325	2,049.87	2	-
September 30, 1896, . .	15	-	117	-	356	640.80	2	-
Averages per year,* .	11	\$25.13	89	\$895.77	318	\$2,153.45	-	-

Receipts for Labor: County Jails and Houses of Correction — Continued.

DATES.	ESSEX		FRANKLIN		HAMPDEN		HAMPSHIRE	
	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor
September 30, 1887, . .	454	-	1	-	179	-	13	-
September 30, 1888, . .	474	\$11,577.46	20	-	261	\$2,622.95	21	-
September 30, 1889, . .	531	11,939.07	31	\$858.29	280	5,514.74	47	\$369.12
September 30, 1890, . .	532	12,368.30	29	1,159.21	226	4,733.24	37	1,465.87
September 30, 1891, . .	615	10,833.96	36	1,053.92	186	4,507.07	17	951.56
September 30, 1892, . .	633	13,156.63	25	1,047.68	261	5,610.53	27	951.10
September 30, 1893, . .	461	11,158.54	37	1,304.00	251	4,754.06	62	1,386.39
September 30, 1894, . .	490	10,325.04	34	1,285.19	278	4,096.99	33	1,277.97
September 30, 1895, . .	535	13,574.20	37	786.45	286	1,047.77	36	1,159.35
September 30, 1896, . .	463	12,182.47	39	918.70	240	3,953.03	56	1,382.60
Averages per year,* .	526	\$11,901.74	32	\$934.83	252	\$4,093.38	37	\$993.77

* Excluding 1887.

Receipts for Labor: County Jails and Houses of Correction — Continued.

DATES.	MIDDLESEX		NANTUCKET		NORFOLK	
	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor
September 30, 1887, . .	463	-	1	-	74	-
September 30, 1888, . .	557	\$26,413.12	5	\$86.00	82	\$2,200.43
September 30, 1889, . .	607	21,186.04	-	-	85	2,072.01
September 30, 1890, . .	557	30,668.71	6	-	100	1,333.06
September 30, 1891, . .	575	30,620.19	3	-	95	1,629.00
September 30, 1892, . .	609	17,188.90	-	-	80	1,344.83
September 30, 1893, . .	592	10,627.33	-	-	104	1,761.50
September 30, 1894, . .	640	6,535.61	-	0.87	95	2,235.03
September 30, 1895, . .	699	11,454.08	2	-	118	2,593.01
September 30, 1896, . .	654	3,676.01	-	-	77	2,407.56
Averages per year,* . .	610	\$17,596.67	-	-	93	\$1,952.94

Receipts for Labor: County Jails and Houses of Correction — Concluded.

DATES.	PLYMOUTH		SUFFOLK		WORCESTER	
	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor	Number of Prisoners	Receipts for Labor
September 30, 1887, . .	57	-	1,818	-	320	-
September 30, 1888, . .	38	\$1,930.99	691	\$20,444.97	355	\$9,478.98
September 30, 1889, . .	66	2,122.84	699	23,902.69	395	7,704.35
September 30, 1890, . .	38	1,100.10	617	27,222.92	271	7,769.39
September 30, 1891, . .	60	1,064.38	756	29,103.76	412	10,439.84
September 30, 1892, . .	64	972.71	743	32,473.19	324	9,204.24
September 30, 1893, . .	88	1,823.47	795	31,291.87	375	8,913.79
September 30, 1894, . .	53	1,559.19	845	23,395.61	386	6,105.35
September 30, 1895, . .	85	1,234.78	760	19,132.84	327	5,370.69
September 30, 1896, . .	87	1,113.76	2,359	80,404.81	400	5,353.27
Averages per year,* . .	64	\$1,439.14	918	\$31,930.30	361	\$7,815.54

* Excluding 1887.

Upon the face of these returns it is plainly apparent that except in some of the larger counties the industries of the county institutions are a minor quantity. The exceptions should include Suffolk, Essex, Hampden, Hampshire, Middlesex, Norfolk, and Worcester counties; and possibly Plymouth. These are all in which the receipts for labor exceeded \$1,000 in 1896. The exceptions, however, are purely relative, as outside of Suffolk County in which the receipts were \$80,404.81 in 1896, and Essex County in which \$12,182.47 was received, the income in no single county exceeded \$6,000, and in most of them was considerably below that amount. In Barnstable, Dukes, and Nantucket counties there are practically no prison industries. In Suffolk County, clothing is made; in Middlesex County, brushes; in Essex, shoes and shoe heels; and elsewhere cane chair seating and the manufacture of shoe heels are the main reliance for the employment of prisoners in the Houses of Correction.

The entire statistics relating to receipts for prison labor in the different penal institutions, are summarized in a concluding table which follows :

Receipts from Prison Labor for Ten Years: 1887-1896.

DATES.	State Prison	Mass. Reformatory	Reformatory Prison for Women	Jails and Houses of Correction	Totals
September 30, 1887,	\$27,195.07	-	\$10,322.99	-	\$37,518.06
September 30, 1888,	76,199.48	-	9,231.88	\$78,173.92	163,605.28
September 30, 1889,	186,380.44	\$30,793.71	11,867.18	80,227.94	309,269.27
September 30, 1890,	201,918.78	46,453.35	12,200.74	91,442.60	352,015.47
September 30, 1891,	148,125.60	43,179.69	10,791.80	94,938.66	297,035.75
September 30, 1892,	137,094.49	57,259.64	11,687.21	85,461.14	291,502.48
September 30, 1893,	106,145.06	50,592.06	18,284.38	76,600.21	251,621.71
September 30, 1894,	156,735.94	60,009.14	14,445.06	58,304.96	289,495.10
September 30, 1895,	203,039.95	59,935.66	16,775.96	58,498.21	338,249.78
September 30, 1896,	200,181.87	54,123.78	11,174.35	112,033.01	377,513.01
Averages per year,*	\$167,452.77	\$50,293.38	\$13,403.34	\$82,188.34	\$313,337.82

* Excluding 1887 and 1888.

The average receipts per year, excluding the years 1887 and 1888, for which the figures are incomplete, are as follows : State Prison, \$167,452.77 ; Massachusetts Reformatory, \$50,293.38 ; Reformatory Prison for Women, \$13,403.34 ; Jails and Houses of Correction, \$82,188.34 ; aggregate average, \$313,337.82.

The latest available figures for the entire output of the industries of Massachusetts outside prison walls are those derived from the United States Census of 1890, namely, \$888,160,403. As against this enormous total the output of the prison workshops is, of course, small. The average number of persons employed in outside industries in 1890 was 485,182. The average number employed in all the prisons, per year for the entire period covered by the foregoing tables, was about 2,435. Restricting the comparison to the particular industries which are represented in the prisons, we find that the aggregate output outside for 1890 was \$127,791,189, and the average number employed, 77,823. The average yearly prison receipts, for the entire period, represent 0.25 per cent (twenty-five hundredths of one per cent) of this output, and the persons employed 3.13 per cent of the average number employed outside.

The receipts per person shown in the foregoing tables do not, of course, represent the net earnings of the prisoners. From the total receipts must be deducted the cost of materials, tools, salaries of instructors, etc. It is impossible from the data at hand to make the necessary deductions over the whole period and for all the institutions. It may be done, however, for the State Prison and Massachusetts Reformatory, which are the principal institutions, for the more recent years, by means of tables contained in the Report of the General Superintendent of Prisons. From these tables the following statement has been compiled :

DATES.	NET EARNINGS PER PRISONER EMPLOYED IN —	
	State Prison	Mass. Reformatory
September 30, 1894,	\$37.66	\$75.28
September 30, 1895,	59.23	62.59
September 30, 1896,	75.60	48.63

From this statement it is seen that during the last three years the net earnings per prisoner in the State Prison range from \$37.66 to \$75.60, and in the Reformatory from \$48.68 to \$75.28; the variation between highest and lowest amounts in each institution being caused by influences exterior to the prisons, affecting the industries in which the prisoners were engaged, as well as by contingencies occurring within the institutions whereby earnings are affected.

On the whole, therefore, the competition between outside industries and the prison industries, as at present conducted in this Commonwealth, cannot be very serious. It possibly amounts to that which would result from the establishment of a single additional factory of a crude and inefficient type. This is not to say that in exceptional cases the manufacture of a prison-made article of a peculiar sort, for example, rattan chairs, or brushes of a certain kind, or shoes of a particular pattern, may not under some conditions interfere with the production of similar articles outside.* This interference is alleged, both by manufacturers and by organized labor.

On the other hand, the prisons are of course, very far from self-supporting, and probably cannot be made self-supporting under any industrial system which is likely to be adopted. The expenditures on account of the county jails and houses of correction were \$640,639 in 1896, and the gross receipts from labor amounted to only \$112,033.01. The following statement applies to the State penal institutions, for the same year :

PENAL INSTITUTIONS.	Gross Cost of Maintenance	Profit on Industries
State Prison,	\$144,787.55	\$44,421.28
Massachusetts Reformatory,	204,817.71	25,798.18
Reformatory Prison for Women,	55,756.47	11,174.35
TOTALS,	\$405,361.73	\$81,393.81

That is, the gross cost of maintenance for these three institutions was \$405,361.73, and the net profits derived from the prison industries

* For example, the employment of prisoners on so-called Berlin gilt mouldings under the contract system in vogue prior to 1887, was seriously felt by outside manufacturers, the entire outside product of this particular article being limited in amount, and of a peculiar character, controlled by comparatively few establishments.

conducted within them was \$81,393.81, or only about 20 per cent of the gross cost of maintenance.

It is not the purpose of this article to deal with theories as to the best methods of conducting prison industries, but rather to show the extent of such labor within our own institutions under the system adopted ten years ago, and now in operation. In view of the economic results, however, it would seem that the profit derivable from prison industries is a secondary consideration, and that the industrial side of prison life may well be entirely divorced from the question of profits, and considered solely with respect to prison discipline and its effect upon the sanitary and moral condition of the prisoner. That, practically, is the standpoint of those penologists who are entitled to speak with authority.

At the same time the effect of prison competition, such as it is, should be modified as far as possible. Here, again, the question of profits should hold a secondary place. There should be no unfair competition by underselling products or undervaluing labor, and the manufacture of articles, which from their character hold a peculiar place in the market, and for that reason are peculiarly sensitive to competition, should be avoided. That, of course, is the spirit of the present law, and of such limiting amendments as have been made from time to time since it was originally enacted.

THE COTTON INDUSTRY.

The growth of the cotton industry in the South is a marked feature of the last decade. The different conditions as to taxation, hours of labor, and other important economic elements, under which factories are operated in Massachusetts and in those Southern States that have made the greatest advance, place the Northern manufacturer at an alleged disadvantage, which, unless offset by the admitted advantages of skill, climate, and quality of product, sharpens competition, and leads to fears, expressed from time to time, that our establishments in this industry may be unable to survive.

The following table shows the number of cotton spindles in each State,* classified in geographical groups, for certain specified years, with the percentages of increase or decrease in 1896 as compared with 1887:

STATES AND DIVISIONS.	NUMBER OF COTTON SPINDLES						Percentages of Increase (+), or Decrease (—), in 1896 as Compared with 1887
	1887	1889	1891	1892	1894	1896	
THE UNITED STATES.	13,470,981	14,457,024	15,497,302	16,286,099	17,126,418	18,753,935	+39.22
North Atlantic Division,	11,784,053	12,450,072	13,092,635	13,697,770	14,149,133	14,893,592	+26.39
Maine,	824,432	884,722	917,169	923,541	931,116	916,304	+11.14
New Hampshire, . .	1,180,648	1,207,312	1,245,021	1,288,351	1,296,606	1,308,802	+10.85
Vermont,	63,868	62,775	72,848	80,271	102,303	106,583	+66.88

* Reported in Dockham's Textile Directory.

STATES AND DIVISIONS.	NUMBER OF COTTON SPINDLES						Percentages of Increase (+), or Decrease (—), in 1896 as Compared with 1887
	1887	1889	1891	1892	1894	1896	
THE UNITED STATES CON.							
<i>North Atlantic Division</i>							
— Con.							
Massachusetts, . . .	5,330,120	5,905,875	6,308,925	6,847,744	7,160,480	7,790,642	+46.16
Rhode Island, . . .	1,856,982	1,948,958	2,036,519	2,086,087	2,076,665	2,104,060	+13.31
Connecticut, . . .	1,092,524	1,023,928	1,046,369	1,020,070	1,033,935	1,045,937	—4.26
New York, . . .	631,676	619,472	609,589	622,399	706,859	717,423	+13.57
New Jersey, . . .	351,068	351,068	381,436	439,322	439,328	439,824	+25.28
Pennsylvania, . . .	452,735	445,962	474,729	389,985	401,841	464,017	+2.49
<i>South Atlantic Division,</i>							
Delaware, . . .	1,180,604	1,433,684	1,691,873	1,858,776	2,200,797	2,980,113	+152.42
Maryland, . . .	67,706	61,714	51,714	51,714	52,052	39,720	—41.33
Virginia, . . .	176,800	176,800	175,500	173,900	174,700	166,800	—5.66
North Carolina, . . .	68,912	79,612	91,760	111,756	139,356	134,696	+95.46
South Carolina, . . .	227,348	321,070	423,192	510,190	656,480	910,474	+300.48
Georgia, . . .	232,692	351,040	463,424	508,404	626,883	997,135	+328.54
Florida, . . .	406,350	442,145	484,983	501,512	550,510	731,238	+79.96
	816	1,300	1,300	1,300	816	—	—
<i>North Central Division,</i>							
Ohio, . . .	170,528	169,648	196,194	206,916	218,956	225,340	+32.14
Indiana, . . .	28,152	26,152	25,802	27,052	27,052	18,000	—36.06
Illinois, . . .	59,896	61,868	70,868	75,212	87,252	98,252	+64.04
Michigan, . . .	27,000	26,000	27,800	39,000	39,000	39,000	+44.44
Wisconsin, . . .	5,500	—	—	—	—	—	—
Iowa, . . .	32,480	32,128	33,248	33,248	33,248	32,648	+0.52
Missouri, . . .	—	6,000	6,000	—	—	—	—
Nebraska, . . .	17,500	17,500	17,500	17,044	17,044	21,952	+25.44
	—	—	14,976	15,360	15,360	15,488	—
<i>South Central Division,</i>							
Kentucky, . . .	335,220	403,332	490,664	496,557	531,452	627,770	+87.27
Tennessee, . . .	27,500	42,500	47,287	49,143	50,043	58,779	+113.74
Alabama, . . .	100,277	116,783	124,911	117,841	121,984	145,428	+45.03
Mississippi, . . .	104,791	96,647	102,519	138,471	170,159	231,011	+120.45
Louisiana, . . .	47,050	54,800	57,420	57,968	54,484	72,258	+53.58
Texas, . . .	44,028	61,168	61,168	53,000	58,800	62,152	+41.16
Arkansas, . . .	5,174	17,734	86,734	71,234	66,774	48,694	+841.13
	6,400	13,700	10,625	8,900	9,148	9,448	+47.63
<i>Western Division,</i>							
Colorado, . . .	576	288	25,936	26,080	26,080	27,120	+*4,608.33
Utah, . . .	—	—	15,648	15,648	15,648	16,688	—
California, . . .	576	288	288	432	432	432	—25.00
	—	—	10,000	10,000	10,000	10,000	—

* This abnormal percentage is due to the fact that the number of spindles in 1887 was comparatively very small.

We are particularly interested in comparing the North Atlantic and South Atlantic divisions. The first-named group includes the New England manufacturing States, together with New York, New Jersey, and Pennsylvania. Here are found 14,893,592 spindles in 1896 out of 18,753,935, the aggregate number in the United States for that year. Every State in the group shows an increase since 1887 except Connecticut which shows a slight decrease, amounting to 4.26 per cent. Massachusetts alone possesses more than one-half the whole number of spindles found in this group, and shows a constant yearly increase, amounting on the whole, to 46.16 per cent. That is to say, it has nearly doubled its spindle power in six years. Turning to the South Atlantic division, which includes North Carolina, South Carolina, and Georgia, the most important Southern cotton manufacturing States, we note that every State in the group, except these and Virginia, shows a decline in spindle power for the period. The whole group contains 2,980,113 spindles for 1896, slightly more than one-seventh of the entire number found in the United States in 1896 and slightly more than one-third the number found in Massachusetts for that year. North Carolina and South Carolina have made great progress relatively, the gain in each State respectively, being

more than 300 per cent; but the whole gain in both States represents but 1,447,619 spindles, about equivalent to the gain in Massachusetts alone since 1891. In the three Southern States of North and South Carolina and Georgia the gain for the six years aggregates 1,772,527 spindles, and the gain in Massachusetts during the same period aggregates 2,460,522 spindles. In 1887 the spindles in these three Southern States constituted 16.25 per cent of the number in Massachusetts. In 1896 they constituted 33.87 per cent of the Massachusetts number.

Alabama in the South Central division, also shows a considerable increase. If Alabama be added to the three Southern States just considered we shall find that the spindles in these four States constituted 18.22 per cent of the number in Massachusetts in 1887, and 36.84 per cent in 1896.

This will suffice for comparisons as to the industry as a whole. The competition between Massachusetts and the South is practically confined to a particular grade of goods. Leaving comparative figures between the sections, let us look at the condition of the industry in Fall River, where the product is nearly all of print cloth, and where the number of spindles constitutes about 36 per cent of the whole number in the State. The following table shows the average number of persons employed, average number of days in operation, and average proportion of business done (as compared with 100, or full productive capacity), in the Fall River cotton industry, from 1889 to 1895, inclusive:

YEARS.	Average Number of Persons Employed	Average Number of Days in Operation	Average Proportion of Business Done
1889,	16,354	294.20	93.39
1890,	18,540	291.20	93.66
1891,	18,759	302.75	96.00
1892,	19,351	305.45	97.49
1893,	19,865	287.97	93.29
1894,	18,887	265.22	84.09
1895,	21,225	296.63	94.91

There is no material decline apparent from these figures although the influence of the general depression in 1894 is readily seen. The following table, however, shows the number employed month by month:

MONTHS.	NUMBER OF PERSONS EMPLOYED IN FALL RIVER DURING EACH MONTH SPECIFIED IN—						
	1889	1890	1891	1892	1893	1894	1895
January,	16,303	18,366	18,678	19,081	20,205	20,713	21,075
February,	16,261	18,288	18,668	19,319	20,184	20,502	21,230
March,	14,806	17,864	18,631	19,303	20,277	20,316	21,362
April,	16,223	18,212	18,708	19,386	20,353	19,859	21,246
May,	16,303	18,231	18,790	19,395	20,377	19,544	21,391
June,	16,249	18,240	18,759	19,421	20,364	19,456	21,412
July,	16,655	18,280	18,782	19,441	20,294	19,543	21,461
August,	16,599	18,235	18,791	19,477	18,402	17,740	21,520
September,	16,658	18,287	18,800	19,447	17,752	9,637	21,359
October,	16,692	18,639	18,790	19,389	20,129	17,382	20,587
November,	16,748	18,703	18,837	19,223	20,140	20,647	20,938
December,	16,743	18,736	18,854	19,333	19,895	20,897	21,125

The number employed month by month was evidently larger in 1895 than in corresponding months in any previous year, the months of October and November showing the least gain, and the figures indicate an apparent increase in productive force during the period, except, as previously referred to, during the depression occurring in 1894. The production by pieces (averaging 46 yards each), month by month, is shown in the table which follows :

MONTHS.	NUMBER OF PIECES OF PRINT CLOTH PRODUCED IN FALL RIVER DURING EACH MONTH SPECIFIED IN —						
	1889	1890	1891	1892	1893	1894	1895
January,	695,000	770,000	1,000,000	920,000	720,000	770,000	830,000
February,	700,000	800,000	800,000	780,000	750,000	800,000	880,000
March,	455,000	975,000	790,000	790,000	780,000	1,010,000	1,100,000
April,	670,000	765,000	770,000	965,000	945,000	800,000	820,000
May,	720,000	1,015,000	1,000,000	790,000	760,000	840,000	880,000
June,	870,000	795,000	750,000	765,000	730,000	990,000	1,050,000
July,	615,000	755,000	770,000	950,000	905,000	740,000	840,000
August,	865,000	837,000	970,000	760,000	530,000	625,000	1,100,000
September,	675,000	805,000	730,000	725,000	585,000	63,000	810,000
October,	740,000	650,000	950,000	950,000	720,000	175,000	880,000
November,	910,000	970,000	730,000	730,000	760,000	745,000	1,060,000
December,	725,000	800,000	725,000	920,000	880,000	920,000	840,000
TOTALS,	8,640,000	9,937,000	9,985,000	10,045,000	9,065,000	8,478,000	11,090,000

As is, of course, well known there is a considerable variation in monthly production. Over the whole period, however, there is shown a gain in the aggregate, the output rising from 8,640,000 pieces in 1889 to 11,090,000 in 1895. The unusual depression in 1894 is indicated in this table as in those which have preceded it, by a drop to 8,478,000 pieces, from 9,065,000 pieces in 1893, the loss being recovered and accompanied by a gain, more than three times as great, in the following year. An analysis of production appears in the final table.

CLASSIFICATION.	NUMBER OF PIECES OF PRINT CLOTH						
	1889	1890	1891	1892	1893	1894	1895
Total production,	8,640,000	9,937,000	9,985,000	10,045,000	9,065,000	8,478,000	11,090,000
Sales :							
Odd,	4,151,000	3,876,000	4,423,000	5,547,000	4,245,000	5,062,000	6,576,000
60 x 56,	147,000	184,000	125,000	173,000	—	—	—
64 x 64,	3,950,000	4,524,000	4,290,000	5,039,000	2,874,000	3,269,000	3,295,000
On hand at close of year,	35,000	583,000	90,000	7,000	142,000	140,000	287,000
Stock in United States at close of year,	328,000	952,000	278,000	9,000	340,000	211,000	464,000
Sold for future delivery,	1,348,000	1,540,000	1,375,000	2,850,000	950,000	1,300,000	1,125,000

Whatever may happen in the future it is encouraging to note that the spindle power in the industry as a whole shows a considerable increase in Massachusetts, during the years considered, and the industry at Fall River, also, has increased when measured by output and persons employed.

A TRAMP CENSUS.

Returns from the towns and cities of the number of tramps cared for during the year give no indication of the number of individual tramps in the State at any one time. A single tramp, changing his location from night to night during the year, would get himself counted 365 times during 12 months, and 100 such tramps would succeed in rolling up an aggregate of 36,500. In order to get a full enumeration, at a fixed date, of the tramp population of the State, so far as relates to the tramps who were housed, the enumerators in the Decennial Census were instructed, as their first duty, to visit, on the evening of May 1, 1895, almshouses, station houses, wayfarer's lodges, and similar places provided within their several districts for the accommodation "of the tramp or wandering class, not having a regular place of abode," and to enumerate such persons.

Of course no account could be made of such tramps as were possibly camped in the woods, bunking in barns, or sheds, or freight cars, or otherwise outside the places provided for their accommodation, but these were probably comparatively few in number on the night in question, which, although fair, was cool, a northwest wind having prevailed during the day. With the exception of 19 towns, most of which were small and away from the usual routes of tramp travel, a complete return was made for the Commonwealth; the nature of the reports being shown in the following table:

THE STATE AND COUNTIES.	NUMBER OF CITIES AND TOWNS—			
	Reporting Tramps	Reporting None	Returning No Report	Total
THE STATE.	110	224	19	353
Barnstable,	1	13	1	15
Berkshire,	—	27	5	32
Bristol,	8	9	3	20
Dukes,	—	6	1	7
Essex,	14	18	3	35
Franklin,	4	22	—	26
Hampden,	5	17	1	23
Hampshire,	5	18	—	23
Middlesex,	31	21	2	54
Nantucket,	—	1	—	1
Norfolk,	15	11	1	27
Plymouth,	7	20	—	27
Suffolk,	2	1	1	4
Worcester,	18	40	1	59

That is to say, 110 cities and towns entertained tramps on the night specified, 224 reported no tramps, no report being received from 19 towns. The number of tramps found is shown by counties in the following table, which gives also the population of each county.

THE STATE AND COUNTIES.	Population	Number of Tramps May 1, 1895
THE STATE.	2,500,183	802
Barnstable,	27,654	2
Berkshire,	86,292	-
Bristol,	219,019	34
Dukes,	4,238	-
Essex,	330,393	91
Franklin,	40,145	6
Hampden,	152,938	16
Hampshire,	54,710	13
Middlesex,	490,217	170
Nantucket,	3,016	-
Norfolk,	134,819	59
Plymouth,	101,498	17
Suffolk,	539,799	242
Worcester,	306,445	152

It is not difficult to discover what parts of the State are most favored by the tramps at the season of the year specified. Berkshire, Dukes, and Nantucket report none, and generally the remote and country districts have the smallest number. On the contrary, Essex, Middlesex, Suffolk, and Worcester counties contained relatively large numbers. In the whole State, there were found 802. This number would probably be doubled in winter and reduced one-half in summer, judging from the position which May bears to other months, as shown in a report covering Boston and vicinity and Springfield and vicinity, for the year 1894, made to the Commission on the Unemployed, and reproduced below, the number found May 1, 1895, in the same towns, being also shown in the table.

CITIES AND TOWNS.	NUMBER OF TRAMPS REPORTED DURING SPECIFIED MONTHS IN 1894—						
	January	February	March	April	May	June	July
BOSTON AND VICINITY.	12,954	12,473	13,083	11,493	6,718	4,408	2,876
Arlington,	92	73	119	139	65	32	20
Belmont,	723	787	833	817	545	345	171
Boston,	6,573	6,572	6,701	5,327	3,069	2,430	2,166
Brookline,	875	495	404	406	211	102	29
CAMBRIDGE,	13	13	24	15	12	9	6
CHELSEA,	396	380	420	379	239	109	27
Dedham,	264	292	281	305	138	99	50
Lexington,	264	245	241	244	152	99	45
MALDEN,	205	183	187	152	96	31	14
MEDFORD,	52	47	62	55	42	17	12
Melrose,	205	245	239	172	118	45	16
Milton,	292	170	167	195	129	57	21
NEWTON,	459	378	442	579	308	211	55
QUINCY,	123	195	235	247	102	80	34
SOMERVILLE,	859	844	803	742	422	199	15
Stoneham,	57	44	68	23	14	4	5
Wakefield,	237	251	356	210	188	94	22
WALTHAM,	458	435	474	433	246	109	50
Watertown,	215	224	282	326	215	115	26
Wellesley,	178	177	166	249	99	104	27
Winchester,	141	292	224	212	128	44	52
WOBURN,	372	313	355	286	189	73	62
SPRINGFIELD AND VICINITY.	2,250	2,467	3,226	2,903	1,300	557	173
CHICOPEE,	381	414	482	482	114	27	6
HOLYOKE,	548	584	591	574	246	82	25
Monson,	48	55	47	41	9	6	-
NORTHAMPTON,	182	188	274	129	-	-	8
Palmer,	45	44	88	53	20	5	1
SPRINGFIELD,	760	792	1,210	1,105	802	377	133
Westfield,	104	117	213	246	199	36	-
Wilbraham,	182	273	321	273	-	21	-

CITIES AND TOWNS.	NUMBER OF TRAMPS REPORTED DURING SPECIFIED MONTHS IN 1894 —						May 1, 1895
	August	September	October	November	December	Total	
BOSTON AND VICINITY.	3,255	4,906	6,802	8,913	9,173	97,144	334
Arlington,	51	102	111	118	90	1,012	-
Belmont,	164	361	401	673	221	6,911	1
Boston,	2,099	2,607	2,879	3,194	3,286	17,203	235
Brookline,	47	162	298	546	634	4,200	8
CAMBRIDGE,	9	8	6	9	11	135	-
CHELSEA,	58	117	281	320	453	3,179	7
Dedham,	76	124	232	225	271	2,247	7
Lexington,	121	123	296	321	411	2,470	2
MALLEN,	18	48	88	140	172	1,334	-
MEDFORD,	46	34	40	34	39	440	-
Melrose,	20	64	95	176	204	1,599	1
Milton,	42	112	153	185	249	1,675	3
NEWTON,	86	139	365	409	409	3,900	14
QUINCY,	72	87	297	234	276	1,892	9
SOMERVILLE,	12	180	465	398	411	5,341	6
Stoneham,	7	17	22	26	36	323	-
Wakfield,	50	73	158	250	298	2,187	3
WALTHAM,	65	141	254	452	495	3,612	11
Watertown,	45	79	122	161	173	1,983	7
Wellesley,	40	70	105	148	142	1,505	5
Winchester,	49	81	140	207	339	1,799	3
WOERN,	78	117	284	387	553	3,069	16
SPRINGFIELD AND VICINITY.	277	623	1,425	2,144	2,490	19,835	18
CHICOPEE,	13	51	189	438	516	3,113	4
HOLYOKE,	39	128	330	420	518	4,085	1
Monson,	5	11	18	21	26	287	-
NORTHAMPTON,	16	48	122	205	224	1,394	4
Palmer,	3	23	39	40	50	414	1
SPRINGFIELD,	193	340	484	499	581	7,279	8
Westfield,	-	22	243	331	344	1,765	-
Wilbraham,	8	-	-	192	228	1,498	-

If anyone thinks that 802 tramps is too small a number to represent accurately the tramp population of the State, it may be noted that the number found on the night in question in the towns included in this table under the designation "Boston and vicinity," namely 334, would, if housed in a different place within the district each night during May, give an aggregate of 10,354 whereas in May, 1894, only 6,718 appear. On the other hand, the number found in the district of Springfield and vicinity, 18, would, if similarly moving about within the district, and counted night by night for the month, aggregate 558; while 1,300 were entertained during May, 1894, not allowing for duplicates, although only 557 appear in June.

Of course such comparisons are indicative merely, and the fact remains that a practically complete enumeration of tramps under cover May 1, showed the total number to be 802. Assuming this to be an average number, likely to be increased in winter and decreased in summer, it is well to remember that 802 tramps moving about from place to place and entertained in a different place each night during the year, will result in a grand total of 292,730 instances of tramps lodged and fed at the public expense.

SEVENTH ANNUAL REPORT. 1876. pp. 379.

Part I.—Wage receivers. (71,339 "individual" returns.)

Part II.—Salary receivers. (9,554 "individual" returns.)

Appendix.—History of the Bureau of Statistics of Labor, and of labor legislation in Massachusetts from 1833 to 1876.

EIGHTH ANNUAL REPORT. 1877. pp. 303.

Part I.—Industrial arbitration and conciliation in England and Massachusetts.

Part II.—Co-operation in Massachusetts.

Part III.—Motive power in Massachusetts; or, the labor of the sun.

Part IV.—The afflicted classes. Blind, deaf, dumb, idiotic, and insane.

Part V.—Pauperism and crime.

Part VI.—Massachusetts manufactories: persons employed in each story, and their means of escape in case of fire.

NINTH ANNUAL REPORT. 1878. pp. 267.

Part I.—Comparative condition of manufactures and labor, 1875 and 1877.

Part II.—The education and labor of the young; the half-time system.

Part III.—The growth of Massachusetts manufactures.

Part IV.—The relative importance of private establishments and corporations in manufacturing industries.

Part V.—Conjugal condition, activities, and ages of married women and mothers.

Part VI.—Nativities, ages, and illiteracy of farmers, farm-laborers, skilled workmen in manufactures and mechanical industries, and unskilled laborers.

TENTH ANNUAL REPORT. 1879. pp. 198.

Introduction.—Expenses of the Bureau.

The insolvency of workingmen.

Weekly payments.

Labor legislation.

Foreign statistics and opinions.

School savings banks.

Bureaus of statistics.

Part I.—The unemployed in Massachusetts. June and November, 1878.

Part II.—Convict labor.

Part III.—Wages and prices, 1860, 1872, and 1878.

Part IV.—Testimony of workingmen.

Part V.—The hours of labor.

Part VI.—Statistics of drunkenness and liquor selling under prohibitory and license legislation, 1874 and 1877.

ELEVENTH ANNUAL REPORT. 1880. pp. 205.

Part I.—Strikes in Massachusetts.

Part II.—Convict labor in the United States.

Part III.—Statistics of crime. 1860 to 1879.

Part IV.—Divorces in Massachusetts. 1860 to 1878.

Part V.—Social life of workingmen.

TWELFTH ANNUAL REPORT. 1881. pp. 545.

Part I.—Industrial arbitration and conciliation.

Part II.—Statistics of drunkenness and liquor selling. 1870 to 1879.

Part III.—Uniform hours of labor.

Part IV.—Influence of intemperance upon crime.

THIRTEENTH ANNUAL REPORT. 1882. pp. 473.

Part I.—The Canadian French in New England.

Part II.—Citizenship.

Part III.—Fall River, Lowell, and Lawrence.

Part IV.—Wages, prices, and profits. 1860, 1872, 1878, and 1881.

FOURTEENTH ANNUAL REPORT. 1883. pp. 412.

Part I.—Employers' liability for personal injuries to their employees.

Part II.—Time and wages.

Part III.—Profits and earnings: 2,440 establishments.

Part IV.—Early factory labor in New England.

FIFTEENTH ANNUAL REPORT. 1884. pp. 484.

Part I.—The working girls of Boston

Part II.—Comparative wages: 1883. Massachusetts and Great Britain.

Part III.—Comparative wages: 1860-1883. Massachusetts and Great Britain.

Part IV.—Comparative prices and cost of living: 1860-1883. Massachusetts and Great Britain.

SIXTEENTH ANNUAL REPORT. 1885. pp. 551.

Part I.—Pullman.

Part II.—Sunday labor.

Part III.—Comparative wages and prices: 1860-1882. Massachusetts and Great Britain.

Part IV.—Historical review of wages and prices: 1752-1860.

Part V.—Health statistics of female college graduates.

SEVENTEENTH ANNUAL REPORT. 1886. pp. 411.

Memorial.—Henry Kemble Oliver.

Part I.—Co-operative distribution in Great Britain.

Part II.—Profit sharing.

Part III.—Food consumption. Quantities, costs, and nutrients of food-materials.

Part IV.—Art in industry.

EIGHTEENTH ANNUAL REPORT. 1887. pp. 305.

The unemployed.

NINETEENTH ANNUAL REPORT. 1888. pp. 239.

Part I.—Strikes and lockouts.

Part II.—Citizens and aliens.

TWENTIETH ANNUAL REPORT. 1889. pp. 684.

Part I.—Relation of wages to the cost of production.

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TWENTY-FIRST ANNUAL REPORT. 1890. pp. 661.

Part I.—Labor laws of Massachusetts.

Part II.—Population of Massachusetts. 1890. From the Eleventh United States Census.

Part III.—Abandoned farms in Massachusetts.

Part IV.—Net profits in manufacturing industries.

TWENTY-SECOND ANNUAL REPORT. 1891. pp. 606. *Postage 18 cents.*

A Tenement House Census of Boston.

Section I.—Tenements, rooms, and rents.

TWENTY-THIRD ANNUAL REPORT. 1892. pp. 479. *Postage 15 cents.*

A Tenement House Census of Boston.

Part I. Section II.—Sanitary condition of tenements.

Part II. Section III.—Place of birth, occupations, etc., of residents in tenement houses.

TWENTY-FOURTH ANNUAL REPORT. 1893. pp. 326.

Part I.—Unemployment.

Part II.—Labor chronology—1893. *Postage 3 cents.*

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ANNUAL STATISTICS OF MANUFACTURES.

{ 1886—First Annual Report
{ 1887—Second Annual Report } Published in one volume.

1888—Third Annual Report.

1889—Fourth Annual Report, *Postage 12 cents.*

1890—Fifth Annual Report, *Postage 13 cents.*

1891—Sixth Annual Report, *Postage 11 cents.*

1892—Seventh Annual Report, *Postage 16 cents.*

1893—Eighth Annual Report, *Postage 15 cents.*

1894—Ninth Annual Report, *Postage 11 cents.*

1895—Tenth Annual Report, *Postage 11 cents.*

LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 3.

JULY.

1897.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief*. CHAS. F. PIDGIN, *First Clerk*. FRANK H. DROWN, *Second Clerk*.

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ANNUAL PUBLICATIONS (1870-1895)

OF THE

BUREAU OF STATISTICS OF LABOR.

[Those publications which are in print, at present, have the postage on same indicated, and will be forwarded by mail, on receipt of postage stated, or they will be sent by express at the expense of the recipient. Those publications, for which no postage rates are given, are *out of print*. All of these volumes, however, may be found and consulted in town and city public libraries. They can also be found in the Public Document Series which is sent to every city and town. In this Series, the Bureau Report is No. 15, and the Annual Statistics of Manufactures is No. 38. Only the annual issues of the Bureau, are included in accompanying list, the Census volumes for 1875, 1880, 1885, and 1895, and special reports, being omitted. They can be found in the city and town public libraries.]

ANNUAL REPORTS OF THE BUREAU.

FIRST ANNUAL REPORT. 1870. pp. 423.

Not divided into Parts. The following subjects were considered: Labor and its attendant legislation; cotton manufacturing; agricultural labor; labor and legislation in Massachusetts; origin of labor movement; origin and development of industrial questions; factory system; testimony, at hearings before the Bureau; children in factories, their employment and schooling; the wage system and its results; homes of low-paid laborers in the city of Boston; homes of the middle class; intemperance; together with an appendix containing replies to blanks, extracts therefrom, testimony and remarks, with statistical tables; summary of laws relating to labor, and catalogue of books upon labor.

SECOND ANNUAL REPORT. 1871. pp. 655.

Not divided into Parts. The following subjects were considered: Combination; combination by guilds; combinations by trades-unions; strikes; strikes in Massachusetts; wages and earnings in agriculture, fisheries, land and water travel and transportation, domestic labor and women's work, industrial occupations, and mechanical trades; cost of living; co-operation; work and home life of factory operatives, their earnings, etc.; children in factories; half-time schools; hours of factory labor; facts bearing on the ten-hour argument; hours of labor in Europe; tenement houses, or homes of low-paid laborers in Boston; poverty; intemperance; hours of labor; statements and experiences of workmen; friendly societies.

THIRD ANNUAL REPORT. 1872. pp. 598.

Not divided into Parts. The following subjects were considered: Wages and earnings in agriculture, commercial, industrial, and mechanical occupations, and domestic labor and women's work (see Report for 1871); hours of labor; cost of living; workmen's statistics; savings banks; condition of operatives in factory towns; Chinese labor; truck system; accidents; strikes; homes of the working classes; schools for factory children; education and half-time schools; purchasing power of wages.

FOURTH ANNUAL REPORT. 1873. pp. 522.

Not divided into Parts. The following subjects were considered: Wages and earnings; cost of living; savings and savings banks; ownership of property; co-operation; education; poverty; hours of labor.

FIFTH ANNUAL REPORT. 1874. pp. 292.

- Part I.*—Education and employment of young persons and children, and digest of American and European laws relative to the subject.
- Part II.*—Relative to professional men.
- Part III.*—The sanitary condition of working people in their homes and employments.
- Part IV.*—Comparative rates of wages and hours of labor in Massachusetts and foreign countries.
- Part V.*—Condition of textile fabric manufactories in Massachusetts, and digest of laws relative to machinery and sanitary matters.
- Part VI.*—Prices of provisions, clothing, rent, etc., in Massachusetts and Europe; purchasing power of money.
- Part VII.*—Savings Banks.
- Part VIII.*—Statistics relating to Massachusetts from the U. S. Census of 1870.
 - Increase in wages in cotton, woollen, and worsted mills; 1861 compared with 1873.
 - Comparative table, showing cost of groceries, provisions, and articles of clothing and dry goods, in 1861 and 1873.
 - Cost of living table. Massachusetts and foreign countries.
 - Homes for women.

SIXTH ANNUAL REPORT. 1875. pp. 513.

- Part I.*—The education of working children.
- Part II.*—Special effects of certain forms of employment upon female health.
- Part III.*—Factory legislation.
- Part IV.*—Condition of workmen's families.
- Part V.*—Co-operation.

MASSACHUSETTS LABOR BULLETIN.

No. 3.

JULY.

1897.

HOURS OF LABOR.

Laws limiting or fixing the hours of labor form an important part of labor legislation. In Massachusetts, petitions for reducing the length of the working day are received during every session of the legislature, and in connection with hearings upon the subject, this Bureau is frequently requested to supply information showing how far other States have advanced in this direction.

There is no uniformity among the States in legislation of this kind, and it is not easy to discover just what the law is in different places, it being necessary to search carefully the statutes of each State, through a series of years, in order to obtain the required data. In States where the factory system is fully developed, and in which manufacturing is important, the law is constantly changing, and even in adjacent States, where practical uniformity obtains, there are often minor differences which must be taken into account when accuracy is desired.

The present article, therefore, presents a digest of the laws relating to hours of labor, brought forward to January 1, 1897, it being our intention hereafter to note such changes as take place from time to time.

GENERAL LEGISLATION.

In many States there are general provisions fixing the limit of a legal day's work. These are not usually for the purpose of preventing labor in excess of the legal limit, but simply to serve as a basis of determining what shall constitute a day's work, in the absence of specific contract provisions. Formerly, the working day extended from sunrise to sunset, but in recent times this has been shortened and limited to 10 hours, and, still more recently, in many States, to eight hours; and the tendency may be said to be unmistakably toward this last mentioned period.

In *Georgia*, as recently as 1885, the law fixed the daily hours of employment for all persons under 21 years of age, in cotton, woollen, or other manufacturing establishments, as "from sunrise until sunset," with

provision for meal times. The universal shortening of the working day, under the operation of the factory system, is exemplified in this State by a reduction of time to 11 hours per day, or 66 per week, except for certain classes of employes. This law, however, properly belongs to specific factory legislation, rather than to the general provisions governing the working day, and will be hereinafter included under that head.

In *California*, eight hours constitute a day's labor on all public work, and, unless otherwise stipulated by contract, in employment generally, except for drivers, conductors, and gripmen on street railways, in which service there are special regulations. A stipulation limiting a day's work to eight hours must form part of any contract under which work is performed for the State or for any municipality.*

In *Colorado*, on all public works, State or municipal, the day's work is limited to eight hours, except in emergencies, and even then work in excess of eight hours is to be treated as part of the subsequent day's work, and in no case shall there be more than 48 hours' work required within any one week of seven days.

In *Connecticut* and *Wisconsin*, eight hours constitute a legal day's work, unless otherwise agreed between the contracting parties, not, however, applying, in *Wisconsin*, to labor furnished under contract by the week, month, or year; in *Missouri* and *Pennsylvania* this is also the law, except in agricultural service; and also in *Ohio*, in manufacturing, mechanical, or mining employments, except under express contract.

In *New York*, eight hours constitute a legal day's work, except in farm and domestic service; but overwork is permitted for extra compensation, by agreement. The regulation as to eight hours applies to all mechanics, workingmen, and laborers employed by the State, or by any municipal corporation, or by persons contracting to perform State or municipal work.

In *New Jersey*, eight hours constitute a day's work on election days. In the *District of Columbia*, and in the States of *Kansas* and *Utah*, the working day is fixed at eight hours in all public employment, whether conducted directly or by contract, except in cases of emergency; and by the law of the *United States*, the labor of mechanics or laborers employed directly by the Government, or by any contractor, on any public work for the United States anywhere, is similarly limited;† and eight hours constitute a day's work for letter carriers.

In *Idaho*, the day's work on State, county, or municipal works, is limited to eight hours, not, however, to include any labor except manual labor employed by the day. Bids for public contracts must include the provision that laborers and mechanics shall be employed as above. In *Illinois*, the legal day's work in mechanical trades, arts, and employments, or other service by the day, except in agriculture, is fixed at

* See opinions of the Court on this law, page 12, *post*.

† See opinion of the Court on this law, page 14, *post*.

eight hours, provided there is no special contract or agreement to the contrary. This limitation, however, does not affect labor or service performed by the year, month, or week, nor exclude working overtime. The law in *Indiana* is similar, domestic as well as agricultural service being excluded from its operation, and it being expressly provided, under penalty, that it shall apply to all persons employed, either directly or under contract, on State or municipal work.* In *Wyoming*, the legal day's work is fixed at eight hours on all State and municipal works, and, except in emergencies, in mines.

In *Maryland*, it is provided that nine hours shall be the limit of a day's work for mechanics and laborers employed on public works, either directly or by contract, in Baltimore, except in cases where the hours are fixed at less per day. This, however, does not apply to the employés of the fire department, Bay View Asylum, or City Jail.

Ten hours constitute a day's work, in the absence of other contract provisions, in *Florida*, *Maine*, *Michigan*, *Minnesota*, *Nebraska*, *New Hampshire*, and *Rhode Island*; restricted, however, in the last named State to manufacturing and mechanical labor, not subject to special factory laws. In *Maine*, agricultural labor is excepted; in *Michigan*, agricultural and domestic labor; and in *Minnesota*, besides excepting agricultural and domestic labor, the law does not apply to persons engaged in the care of live stock; and there is a penalty for permitting any person under 14 to labor more than 10 hours per day.

In *Massachusetts*, for all laborers, workmen, and mechanics, employed by or on behalf of the Commonwealth, or any county or municipality, the legal day's work is nine hours in length.

SPECIAL FACTORY PROVISIONS.

The legislation limiting the hours of labor in factories is based upon different grounds from those which govern the general provisions defining the legal meaning of a day's work. Such general provisions, of course, are, as a rule, simply intended to establish a contract basis for computing payment by the day, in the absence of definite written or verbal contracts, between the employer and employed, exactly fixing hours. The factory legislation, however, proceeds upon the theory that employment beyond a certain limit, is, in certain industries, or for certain persons, for example, women and minors, detrimental to the public welfare.

In *California*, minors under 18 are not to be employed in manufacturing, mechanical, or mercantile establishments, or other place of labor more than 10 hours in any one day, except in making necessary repairs, or for the purpose of making a shorter day for one day in the week; and in any event not more than 60 hours per week.

* See opinion of the Court on this law, and upon the similar law in Michigan and New York, page 13, *post*.

In *New Jersey*, 10 hours constitute a legal day's labor in cotton, woollen, silk, paper, glass, and flax factories, and in manufactories of iron and brass; and persons under 18 and women are not to be employed in factories, workshops, or manufacturing establishments, more than 55 hours per week; except when engaged in preserving perishable goods in fruit canning establishments, or in glass works. The hours for all employes in bakeries and confectionery establishments are limited to 10 per day or 60 per week.

In *Georgia*, 11 hours per day, or 66 hours per week, is the limit of employment for all persons in cotton or woollen factories, except engineers, firemen, watchmen, mechanics, teamsters, yard employes, clerical force, or help employed in cleaning and repairing. In *South Carolina*, the law is similar, with a special provision that employes may work additional time, not to exceed 74 hours per annum, as may be necessary to make up lost time, or to prevent overwork in cleaning or repairing machinery.

In *Illinois*, a statute passed in 1893 provided that females were not to be employed in any factory or workshop more than eight hours in any one day, or 48 hours per week.* In *Indiana*, daily work is limited to 10 hours per day for persons under 18 in cotton or woollen factories, with a further limitation fixing the hours at eight per day for persons under 14 in any manufacturing establishment.

In *Louisiana*, persons under 18 and women are not to be employed more than 10 hours per day, or 60 hours per week, in factories, warehouses, workshops, clothing, dressmaking, or millinery establishments, or any manufacturing establishment or place where goods are prepared for manufacturing.

In *Maine*, 10 hours per day, or 60 hours per week, is the limit of employment for females of whatever age, and for males under 16, in manufacturing or mechanical establishments; and males 16 years of age and over cannot be therein employed more than 10 hours per day, unless under voluntary contract, made with the consent of parent or guardian, if the person is a minor, and for extra compensation; it being also provided that females 18 years of age or over may also contract to work in excess of the time limit, not exceeding six hours in any one week, or 60 hours per year, for extra compensation; but if such a contract is made by a minor, the consent of parent or guardian must be obtained.

In *Maryland*, the law provides that 10 hours shall be the limit of the day's work in cotton or woollen factories, except when service is required for the purpose of making repairs, improvements, etc.; and then males over 21 may be employed therefor, and extra compensation is to be allowed. Employers are not prohibited, however, from making contracts with male employes over the age of 21 years, to work by the hour for such time as may be agreed upon.

* See, however, the decision of the Supreme Court, on the point of constitutionality, page 13, *post*.

In *Massachusetts*, persons under 18 and women, in manufacturing and mechanical establishments, are limited to 10 hours per day, or 58 per week; and a limitation to 60 hours per week extends to persons under 18 in mercantile establishments.*

The limit in *New York* and *Michigan* is placed at 10 hours per day, or 60 hours per week, for males under 18 and females under 21, in manufacturing establishments, except in case of repairs to avoid the stoppage of the works. There are, however, in *Michigan*, other limitations upon the labor of males under 14 and of females under 15, who may not be employed more than 54 hours per week in mercantile establishments. In *New York* there is also a law providing that males under 16 and females under 21 shall not be employed more than 10 hours per day, or 60 hours per week, in mercantile establishments; nor before seven in the morning, nor after 10 in the evening. Saturdays are excepted, but the hours must not exceed 60 per week. It is provided, however, that nothing in this law shall apply between December 15 in any year and the first day of January following. In *Minnesota*, persons under 16 years of age may not be employed more than 10 hours a day in any manufacturing or mercantile establishment.

The limitation fixing the legal hours of employment of persons under 18, and women at 10 per day or 60 per week, is in force as to manufacturing or mechanical establishments in *New Hampshire*; and in *Rhode Island* the law is similar, except that the age limit for minors is placed at 16 instead of 18 years.

In *North Dakota*, no person under 18 and no woman shall be compelled, and no person under 14 permitted, to labor more than 10 hours per day in manufacturing or mechanical establishments; and this is the law in *Oklahoma* and *South Dakota* also. In *Ohio*, the limitation of working hours to 10 per day or 60 per week applies only to persons under 18 years of age, but covers employment in mines as well as manufacturing establishments. In *Pennsylvania*, a similar limitation is applied to persons under 21, in cotton, woollen, silk, flax, bagging, and paper mills. In *Vermont*, in manufacturing or mechanical establishments, the limitation to 10 hours per day applies only to the employment of persons under 15 years of age; while in *Virginia* the labor of women, and of children under 14, is subjected to the same limitation. In *Wisconsin*, persons under 18 and women cannot be compelled to work more than eight hours per day in manufacturing or mechanical establishments.

Besides legislation limiting the hours of employment in factories, several States have laws relating to the working day in railroad service. In *California*, 12 hours constitute a day's work for drivers, conductors, and gripmen on street railways. In *Colorado*, it is provided that there shall be no labor on railroads in excess of 18 consecutive hours, unless in case of casualty, except after a period of eight hours for rest. In *New*

* See opinion of the Court on the original 10-hour law in *Massachusetts*, page 13, *post*.

Jersey, on railroads, 12 hours' work, performed within 12 consecutive hours, which must also be within the 24 hours of the natural day, is the limit of a day's labor, except in emergencies, and time must be allowed for meals. In *Florida*, railroad runs must be limited to 13 hours within 24, unless in case of casualty, or other unforeseen detention, and eight hours' rest must follow each 13 hours' run. A similar law is in force in *Georgia*, except that the period of rest must be 10 hours instead of eight.

In *Louisiana*, the working day on street railroads, except in case of accident or unavoidable delay, is fixed at 12 hours inside 24, with time for meals; and 12 hours within 24 also limits the working day on street railways in *Maryland* and *Pennsylvania*, the law in the last named State especially providing that if, in emergency, longer time is unavoidable, extra compensation must be allowed.

In *New York* and *Michigan*, on all railroads, 10 hours of labor performed within 12 consecutive hours, constitute a day's work, except in emergencies; but, the law provides that when extra work is performed in emergency, extra compensation shall be allowed; and there is a provision, restricted, however, in *New York*, to railways 30 miles in length or over, requiring eight hours' rest to intervene after 24 hours' service.*

In *Minnesota*, service on railroads shall not at any time exceed 18 hours during any one day, except in case of emergency; 10 hours constitute a day's work, or any less number of hours that may be agreed upon; and labor in excess of 10 hours is to receive extra compensation. After 20 consecutive hours of service, eight hours' rest must intervene.

In *Ohio*, on railroads over 30 miles in length, eight hours of rest are to intervene after 15 hours' work, except in emergencies, and 10 hours constitute a day's work, extra payment being made for overtime. In *Washington*, on street railways, 10 hours within 24 is the limit of the working day; while in *Massachusetts*, upon street railways, the law limits the employment of conductors, drivers, and motormen to 10 hours within 12 consecutive hours, except that on legal holidays, or days when the amount of travel is unusually large, and in emergencies, extra service may be rendered for extra compensation.

In some States the law limits the working day in mines. Thus, in *Maryland*, in mines in Alleghany and Garrett counties, the limit is fixed at 10 hours per day, except that labor overtime is permitted under contract, additional compensation being allowed. In *Utah*, work in underground mines, and in smelters or establishments for the reduction or refining of ores or metals, is limited to eight hours per day; † and in *Wyoming*, also, the legal day's work in mines is fixed at eight hours, except in emergencies, and then extra work entitles to extra compensation. In *Ohio*, the law limiting employment in manufacturing and mechanical establishments applies also to mines, as has been stated.

* See opinion of the Court on this law, page 14, *post*.

† See opinion of the Court on this law, page 15, *post*.

In *Montana*, there is a special law limiting the hours of labor for stationary engineers to eight within 24, except in emergencies. This act applies only to steam plants in continuous operation, or which are operated 20 hours or more in each 24. In brickyards, in *New York*, 10 hours constitute a day's work, exclusive of the necessary time for meals, and the workmen cannot be required to begin work earlier than seven o'clock in the morning; but work otherwise than as provided in this law is permitted, if mutually agreed upon, and for extra compensation. The *New York* statutes contain a special provision requiring contractors, when submitting proposals upon public work in the city of Buffalo, to bind themselves not to accept more than eight hours as a day's work, to be performed within nine consecutive hours, and not to employ men for more than eight hours within 24 consecutive hours, except in emergencies, in which case extra pay is to be allowed.*

SPECIAL PROVISIONS RELATING TO WOMEN AND CHILDREN.

There are in some States certain special provisions relating to the employment of women and children, which are not comprehended in the statutes already cited, and which either limit hours or entirely prohibit employment.

For example, in *Alabama*, boys under 10 years of age, and females of whatever age, may not work in mines; while boys under 14 and females are subject to similar prohibition in *Arkansas*, *Illinois*, *Indiana*, *Utah*, *Washington*, and *Wyoming*. In *Colorado*, the prohibition covers as to all mines persons under 14, and as to coal mines, persons under 12 and all females, and extends also to boys under 16 who cannot read and write; and the law preventing employment of both boys and girls under 14 applies to smelter works, mills, and factories, as well as to mines. In *Arkansas*, boys under 16 who cannot read and write are also included, and in *Washington*, no boy under 12 can be employed in or about the outside structures of a colliery, except in clerical work. In *West Virginia*, the prohibition as to labor in mines covers boys under 12 and females of any age; it also includes boys under 12 in *Iowa*, persons of either sex under 12 in *Kansas*, *North Dakota*, *Tennessee*, and by the *United States* law, in the *Territories*; and applies to persons under 14 in *Idaho*, *Minnesota*, *South Dakota*, and *Wisconsin*. In *Kansas*, persons of either sex under 16 who cannot read and write and show at least three months' school attendance during the year are also included. In *Ohio*, boys under 12 may not work in mines, nor any minor between 12 and 16 unless able to read and write. In *New Jersey*, employment in mines is prohibited for boys under 12 and girls under 14.

In *Pennsylvania*, no woman can be employed in coal mines, nor can any person under 15 be employed to oil machinery in anthracite coal

* See opinion of the Court on this law, page 14, *post*.

mines, nor, if under 18, to run breaker engines; no boy under 14 may work in any such mine, nor if under 12, be employed about the outside structures of a colliery, except in clerical work. No boy under 12 may be employed in a bituminous coal mine, and no boy under 16, unless in company with a person over 16.

In *California*, *Colorado*, *Connecticut*, *Delaware*, *Georgia*, *Illinois*, *Indiana*, *Kansas*, *Kentucky*, *Louisiana*, *Maryland*, *Massachusetts*, *Michigan*, *Minnesota*, *Missouri*, *Montana*, *New Hampshire*, *New Jersey*, *New York*, *Ohio*, *Pennsylvania*, *Rhode Island*, *Wisconsin*, *Wyoming*, and the *District of Columbia*, there are special statutes substantially similar in tenor, prohibiting the employment of children in vocations or in places deleterious to health or morals; for example, in dancing, singing, begging, peddling, or as gymnasts or contortionists; and in *California*, the law prohibits sending minors in the employ of telegraph, telephone, or special-delivery companies, to places of questionable repute.

In *California*, also, by a general law, minors are not to be employed, except in vinicultural or horticultural pursuits or domestic occupations, more than eight hours in any one day. In *Colorado*, children under 14 are not to be employed during school hours when the public schools are in session, unless such children have received instruction for at least 12 weeks in the year, eight weeks of which shall be consecutive.

In *Connecticut*, children under 14 are not to be employed in manufacturing, mechanical, or mercantile establishments, and not to be employed at all unless, if resident within the United States for nine months, such children have attended a day school in which public school studies are taught, during at least 12 weeks, or 60 full school days, of the 12 months next preceding the time of employment, at least six weeks' attendance to be consecutive. No person over 14 and under 16, who cannot read and write, is to be employed in any town where evening schools are established, unless he can show consecutive attendance for 18 evenings within every school month of 20 days, and that he is a regular attendant. Persons under 16 may not be employed in the care or management of elevators.

In *Illinois*, children under the age of 13 years are not to be employed in any shop, factory, or manufacturing establishment, unless such children have had at least eight weeks' schooling in the current year, and then only when the labor or service of such children constitutes the means of support of an aged or infirm relative, who is in whole or in part dependent upon such child. Persons under 14 are not to be employed in manufacturing establishments, nor if over 14 and under 16, unless a certificate of age and birth is furnished.

In *Louisiana*, boys under 12 and girls under 14 are not to be employed in manufacturing establishments, and persons of either sex if under 14 cannot be employed in manufacturing establishments, or to attend itinerant musicians, unless they have had at least four months' schooling during the 12 months next preceding such employment. Chil-

dren of either sex, if under 12, cannot be employed in manufacturing establishments in *Maryland*, except in certain specified counties, and except in establishments for the preparation of canned goods.

In *Maine*, no child under 12 years of age to be employed in any manufacturing or mechanical establishment, and no child under 15 to be thus employed, except during vacation time of the public schools, unless he has had during each and every year at least 16 weeks' schooling, eight weeks of which shall be continuous. Certificates are required of age, birth, and school attendance.

In *Massachusetts*, women and minors are not to be employed in any capacity for the purpose of manufacturing, between the hours of 10 o'clock at night and six o'clock in the morning. Children under 13 are not to be employed in factories, workshops, or mercantile establishments, nor at any indoor work performed for hire, during the hours when the public schools are in session, nor if under 14 in any manner during such hours, unless they have attended school for at least 30 weeks. No child under 14 to be employed in any manner before six o'clock in the morning, or after seven at night; and no such child to be employed in any factory, workshop, or mercantile establishment, except during the vacation of the public schools, nor at any indoor work for hire during the hours when the public schools are in session, unless the employer procures and keeps on file a certificate showing besides the facts of identification, the further fact that 30 weeks' schooling has been had during the year preceding the issuing of the certificate, and that the child can read at sight and write legibly simple sentences in English, or, in case the child cannot so read and write, that he is a regular attendant at an evening school, and in such case, the certificate continues in force only while the child is attending such evening school, the fact being endorsed thereon, not exceeding the length of the public school year minus 20 weeks, in place of attendance at day school as provided by law. If attendance has been at a half-time school, 40 weeks of attendance must be certified instead of 30. No child under 16 can be employed in any factory, workshop, or mercantile establishment, except a certificate as above is kept on file by the employer. No child who has been continuously a resident of a city or town since reaching the age of 13 years can receive a certificate that he has reached the age of 14 unless he has attended school for at least 30 weeks after reaching the age of 13, unless such child can read at sight and write legibly simple sentences in English or is exempt by law from such attendance. No person can employ a minor under 14 years of age, or over, who cannot read and write in the English language, and who resides in a city or town wherein public or evening schools are maintained, and is not a regular attendant of the day school, or has not attained an attendance of 70 per cent or more of the yearly session of the evening school. There is a provision for exemption from this section in case the labor of the minor, who would be debarred from employment under it, is necessary for the support of the family to which he belongs, or for his own support.

The law is very explicit as to the form of the certificate, its manner of issuing, and as to the respective duties of the school committees in the towns and cities, and the State inspection officers with respect to the administration and enforcement of the law. Children under the age of 14 are not permitted to clean any part of the power machinery in a factory when such part is in motion, or when such part is in dangerous proximity to moving machinery. Persons under the age of 18 years are not to have the care, management, or operation of any elevator running at a speed of over 200 feet a minute.

In *Minnesota*, no child under 14 is to be employed at any time in any factory, workshop, or mine; nor outside of the family in which he resides at any indoor work for hire before seven o'clock in the morning, or after six at night. No child of school age shall in the year next succeeding any birthday of such child be employed at any occupation during the hours in which the public schools are in session, unless or until he has attended school for the period of time required by law for school attendance. No child under 16 is to be employed at any indoor occupation, except in vacation time, who cannot read and write in English, provided such child is not a regular attendant at a day or evening school; except, however, that when the labor of a minor 12 years of age and under 14, who is able to read and write English, or of any minor 14 years of age or over, is necessary for the support of the family to which he belongs, or for his own support, and that such minor is employed during a reasonable part of the year only, or that he is necessarily employed during the whole year, the provisions as to non-employment shall not apply. Persons under 16 are not to have charge of elevators; nor if under 18, to have charge of elevators running at a speed of over 200 feet a minute.

In *Michigan*, no child under 14 is to be employed at all in manufacturing establishments, nor in any kind of business unless after four months' schooling during the 12 months next preceding such employment, except in districts in which schools are kept only three months; and if under 16, a certificate of birth, etc. must be on file before employment is given in manufacturing establishments.

In *New Hampshire*, children under 10 are not to be employed in manufacturing, nor, if under 16, during the time the public schools are in session, unless they can read and write. Before a child can be employed in manufacturing establishments, certificates of schooling are required, as follows: If under 16 and over 14, 12 weeks; if under 14 and over 12, six months, or such part thereof as the schools were in session in the district in which such child resides; and if under 12 and over 10, the whole time the schools were in session in such districts.

In *New Jersey*, no boy under the age of 12, nor girl under 14, can be employed in any factory, workshop, mine, or manufacturing establishment; and no child under 15 is to be employed in any business whatever, unless after 12 weeks' schooling within the 12 preceding months, which

may be either 12 consecutive weeks, or two terms of six consecutive weeks each.

In *New York*, children between eight and 12 years of age are not to be employed during the school hours of the public schools. Children under 14 are not to be employed in manufacturing or mercantile establishments, and if under 16, certificates of age, birth, etc. must be filed, stating also that the child being of age 14, or over, has attended school for at least one school year; except that any child 12 years of age or over who can read and write in English may be employed in mercantile establishments, or any child 14 years of age or over who can read and write in English may be employed in manufacturing establishments, during the vacation time of the public schools.

In *North Dakota* and *South Dakota*, children between eight and 14 are not to be employed in any mine, factory, workshop, or mercantile establishment, or in any other manner except by their parents, during the hours the public schools are in session, unless after 12 weeks' schooling during the year.

In *Ohio*, children under 14 cannot be employed while the public schools are in session, unless after compliance with the law as to school attendance, — 20 weeks in city districts; 16 weeks in other districts. If over 14 and under 16, and unable to read and write, they must attend school at least half a day or a night school, or receive private instruction until able to read and write in English, and employment is made contingent upon compliance with this requirement.

In *Pennsylvania*, children under 13 are not to be employed in cotton, woollen, silk, paper, bagging, and flax mills; and persons 13 years of age but under 16 are not to be employed in such mills more than nine months in any one year, nor unless they have attended school at least three consecutive months in the same year.

In *Rhode Island*, no child under 12 is to be employed in any factory, manufacturing, or mercantile establishment, where five or more women or children are employed; and no child between 12 and 15 is to be employed in any manufacturing or mercantile establishment, or by a telegraph or telephone company, except during vacations of the public schools, unless such child has attended school for at least 80 full school days during the days and hours the public schools were in session in the district where such child resides, within the 12 months next preceding such employment, except such child has acquired the elementary branches of learning taught in the public schools, or has been excused by the school committee.

In *Vermont*, children under 10 are not to be employed in mills or factories; nor during the time when the schools are in session, if under 14 and unable to read and write; nor, if under 14, unless such children have received 26 weeks' schooling during the year preceding such employment.

In *Wisconsin*, no child under 14 may be employed in mines, factories, workshops, or places of amusement or entertainment, except in the service of its parents outside of school hours; and except also, that if a

child is over 12 years of age, employment may be given under such a permit as the county judge may give, specifying the conditions and time of employment; and in granting such a permit, the judge must consider the moral and physical condition of the child, his state of education, the necessities of the family to which he belongs, and such other circumstances as in his discretion ought to affect the question of exemption from the law prohibiting employment. If the child resides more than 10 miles from the county seat, the power to grant a permit may be exercised by the mayor of the city or president of the village in which the child resides.

In *Florida*, persons under 15 are not to be employed for more than 60 days without the consent of their legal guardians; and in *Nebraska*, children under 12 cannot be employed in railroad shops, factories, workshops, or mines more than four months in any one year.

In *Tennessee* and *West Virginia*, the law prohibiting the employment of children under 12 in mines, extends also to manufacturing establishments; in *New Jersey*, there is a law prohibiting the employment of minors below the age of 16 at any work dangerous to health, without a certificate of fitness from a reputable physician; while in one or two States there are special statutes prohibiting the employment of women and children in cleaning power machinery while the same is in motion, similar to the provision upon this point in Massachusetts, which has been cited.

COURT DECISIONS.

Some of the laws relating to hours of labor have been passed upon by the courts in certain States. For example, the provision of the law in *California* that a stipulation limiting a day's work to eight hours must form part of any contract under which work is performed for the State or for any municipality, has been explained by the court to mean that "Eight hours' labor shall constitute a legal day's work under the contract to which the stipulation is made applicable," and that it was "the intention of the legislature to absolutely prohibit the officers of the State and subordinate local government from requiring anyone doing public work to work more than eight hours in doing a legal day's work, but not as intending to require them to prohibit the laborer from doing extra work for extra pay." (Supreme Court, 1869, *Drew v. Smith*, 38 Cal., 325.) It was also held by the Supreme Court of *California*, in 1874, (*Babcock v. Goodrich*, 47 Cal., 488.) that "A contract for the erection of county buildings is not void because it does not provide that eight hours shall be a day's work."

In *Colorado*, the Supreme Court has answered an inquiry as to the constitutionality and legality of proposed legislation providing that "Eight hours shall constitute a day's labor in all mines, factories and smelters," in the following manner: "It is not competent for the legislature to single out the mining, manufacturing, and smelting industries of the State, and impose upon them restrictions, with reference to the hours of their employés, from which other employers of labor are exempt.

An act such as proposed would be manifestly in violation of the constitutional inhibition against class legislation. The bill submitted also violates the right of parties to make their own contracts, a right guaranteed by our bill of rights and protected by the fourteenth amendment to the Constitution of the United States." (Supreme Court, 1895, 39 Pacific Reporter, 329.)

The Supreme Court in *Illinois* (1895, 40 Northeastern Reporter, 454.) has held that a certain section of an act regulating the hours of labor in the manufacture of clothing, wearing apparel, and other articles, providing that "No female shall be employed in any factory or workshop more than eight hours in any one day or 48 hours in any one week," is unconstitutional, as depriving persons of property and liberty without due process of law, in violation of section two of article two of the Constitution of that State.

In *Indiana*, the provision as to eight hours constituting a day's labor has been held not to apply to a case where the circumstances under which the employment was taken showed that more than eight hours would be expected, and the employé without objection, and without informing his employer that he intended to charge for extra employment, worked more than eight hours a day. (Appellate Court, 1892, *Helphensine v. Hartig*, 5 Griffiths, 172. *Ibid.*, 1894, *Grissell v. Noel Bros. Flour-Feed Company*, 36 Northeastern Reporter, 452.) A similar decision has been rendered in *Michigan* (Supreme Court, 1890, *Bartlett v. The Street Railway Company of Grand Rapids*, 82 Mich., 658.) and in *New York* (Court of Appeals, 1884, *McCarthy v. Mayor, etc., of New York*, 96 N. Y., 1.)

We have cited the adverse decision of the court in *Illinois* as to the constitutionality in that State of the law fixing the hours of labor of minors and women. On the other hand, the Supreme Judicial Court in *Massachusetts* has decided that a similar law prohibiting the employment of all persons under the age of 18, and all women, from laboring in any manufacturing establishment more than 60 hours per week,* "violates no contract of the Commonwealth implied in the granting of a charter to a manufacturing company, and violates no right reserved under the Constitution to any individual citizen, and may be maintained as a health or police regulation. A law which merely prohibits a woman being employed in any manufacturing establishment more than a certain number of hours per day or week, does not violate her right to labor as many hours per day or week as she may see fit, and is within the power of the legislature to enact." (Supreme Judicial Court, 1876, *Commonwealth v. Hamilton Manufacturing Company*, 120 Mass., 383.)

In *Nebraska*, a statute (Chap. 54 of 1891) regulating the hours of labor, omitted from the compiled statutes of 1895 and not included in our resumé, although never expressly repealed, has been declared unconstitu-

* Now changed to 58 hours per week.

tional on the ground that farm and domestic labor having been excepted, the discrimination thus exercised was special legislation; and secondly, a provision having been incorporated in the law that employers "working their employes over the time specified in the act" should pay as extra compensation double the amount per hour as paid for previous hour, this provision denied the constitutional right of parties to contract with reference to compensation. It appearing to the court, from an inspection of the entire act, that the two points specified formed an inducement to its passage, no part of the act could be sustained as constitutional. (Supreme Court, 1894, *Low v. Rees Printing Company*, 41 Nebr., 127.)

In *New York*, the provisions of the statute forbidding contractors for city work in the city of Buffalo to accept more than eight hours for a day's work, except in cases of necessity, has been held not to "abridge the privileges of citizens (under the Constitution of the *United States*) or deprive any citizen of his rights or privileges (under the Constitution of *New York*)."

(Superior Court of Buffalo, *People v. Beck*, 30 *New York Supplement*, 473.)

The case in which this decision appears was appealed, and in considering the appeal, the Court of Appeals held that for reasons stated it was unnecessary to consider the constitutional question sought to be presented, and stated further "We are also of opinion that this clause cannot be the basis for the criminal indictment of any person for a misdemeanor." (Court of Appeals, 1894, 39 *Northeastern Reporter*, 80.)

And in respect to the provisions of the *New York* statute relating to the hours of labor upon railroads, the court has held that the provisions for fixing hours of labor, but permitting extra hours in case of unavoidable accident or delay, and providing also that extra compensation shall be given in case any trainman works overtime at the request of the railway company or its agent, are not penal in their scope, "but are applicable to the adjustment of the contractual relations of the parties, when the contract for hire of an employe omits to prescribe the duration of a day's service;" and the court further held that although a section of the act declared a violation of its provisions to be a misdemeanor, this applied "only to the prohibition against permitting or requiring employes who have worked continuously for 24 hours from going on duty again until after eight hours' rest."

With respect to the *United States* law, declaring that eight hours shall constitute a day's work for all laborers, workmen, and mechanics employed by, or on behalf of the government of the United States, it has been held that this provision "is in the nature of a direction by the government to its agents," and "it is not a contract between the government and its laborers. It neither prevents the government from making agreements with them by which their labor may be more or less than eight hours a day, nor does it prescribe the amount of compensation for that or any other number of hours' labor." (United States Supreme Court, 1876, *United States v. Martin*, 94 U. S., 400.) It has also been held that

the law applies to seamen on a government vessel engaged in removing obstructions to navigation in rivers and harbors, they being thereby engaged upon "public works of the United States." (United States District Court, District of Washington, N. D., 1894 *United States v. Jefferson*, 60 Federal Reporter, 736.)

In *Utah*, the constitutionality of the act regulating the hours of employment in underground mines, and in smelters and ore reduction works to eight per day, except in emergency, has been recently decided by the court. (*Holden v. Hardy*, 46 Pacific Reporter, 756.) In this case the plaintiff was found guilty of a misdemeanor by a justice of the peace, the offence being the employment of a workman in underground mining more than eight hours a day. He was fined, and upon refusal to pay the fine, committed to jail. He then applied to the Supreme Court for a writ of habeas corpus. The court refused the writ, and in considering and deciding the question whether the legislature had the power to enact such a statute, cited section one of article 16 of the Constitution of *Utah*, which is as follows: "The rights of labor shall have just protection through the laws calculated to promote the industrial welfare of the State." In delivering the opinion of the court, Chief Justice Zane said upon this point, "The legislature must decide whether the law is just and adapted to the purpose named; and unless the law is so palpably unjust, or so clearly not calculated to promote the purposes mentioned in the constitution, as to remove every reasonable doubt that it is unjust, or that it is not calculated to promote the purpose expressed in the constitution, the court should not hold it without the scope of the authority mentioned in that instrument." And referring to section six of the same article, which is as follows: "Eight hours shall constitute a day's work on all works or undertakings carried on or aided by the State, county or municipal governments; and the legislature shall pass laws to provide for the health and safety of employes in factories, smelters and mines," the Chief Justice said, "This provision must be regarded as an expression of the will of the people of the State with respect to the subjects and objects of legislation named in it; and they possessed all the power to enact laws with respect to such subjects that the people of the United States had not conferred in the national Constitution exclusively on that government. Any law adapted to the preservation of the health or safety of employes in factories, smelters, or mines is within the scope of this provision. The law must be connected with some of the objects named and calculated to effect that purpose. If it is not so connected and adapted, the court has the right to hold that it is not within the scope of the provision. But, if there is a reasonable doubt as to the connection and adaptation, the advisability must be held by the court to have been with the law-making power. The court must be able to see clearly that the law was not so connected before holding it void for that reason." And as to the particular statute in question, relating to employment in

mines, wherein frequently the health and safety of employ  s were in danger, the court could not say that a law limiting the period of labor in such mines was not thus connected.

SUMMARY.

On account of the minor differences in statutes of the same general character in the different States, it is impossible to make a condensed summary which will show the exact facts. It may be said, however, that the following States have statutes fixing in some degree the limit of a day's work in the absence of special contract: — To eight hours: *California, Connecticut, Illinois, Indiana, Missouri, New York, Ohio, Pennsylvania, Wisconsin, and Wyoming*. Eight hours in public employments only: *Colorado, District of Columbia, Idaho, Kansas, Maryland, Utah*, and by a law of the *United States*. Ten hours: *Florida, Maine, Michigan, Minnesota, Nebraska, New Hampshire, and Rhode Island*. Nine hours in public employments: *Massachusetts*. These limitations in States which do not specifically confine the statute to public employments are, nevertheless, sometimes applicable only to certain specified employments, and are otherwise modified, as explained in the pages preceding this summary.

Special provisions limiting the hours of labor for minors or women or both in factories, and in some cases, in other employments, exist in the following States: To 10 hours per day, or 55 hours per week, in *New Jersey*; 10 hours per day, or 58 per week, in *Massachusetts*; 10 hours per day, or 60 per week, in *California, Indiana, Louisiana, Maine, Maryland, Michigan, Minnesota, New Hampshire, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, Vermont, and Virginia*; 66 hours per week in *Georgia* and *South Carolina*; eight hours per day in *Wisconsin*. A law upon this subject in *Illinois* has been declared unconstitutional in that State.

The age limits of persons to whom these laws apply vary in different States, and there are other differences, all of which have been previously pointed out.

The hours of labor upon railroads have been a subject of limiting legislation in *California, Colorado, Florida, Georgia, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Pennsylvania, and Washington*.

Besides the laws limiting hours of labor in factory and other employments, there are special statutes limiting or preventing the employment of women and children in mines, in *Alabama, Arkansas, Colorado, Illinois, Iowa, Indiana, Kansas, Minnesota, New Jersey, North Dakota, Ohio, Pennsylvania, South Dakota, Tennessee, Utah, Washington, West Virginia, Wisconsin, Wyoming*, and also a law of the *United States*.

There are statutes preventing the employment of children in certain employments deleterious to health or morals, in *California, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Wisconsin, Wyoming, and District of Columbia*. There are also statutes limiting employment to a fixed number of months or weeks per year, or with respect to a certain amount of schooling, in *Colorado, Connecticut, Illinois, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin*.

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- VIRGINIA. *Special Factory Provisions.*—5. *Summary.*—16.
- WASHINGTON. *Special Factory Provisions.*—6. *Special Provisions Relating to Women and Children.*—7. *Summary.*—16.
- WEST VIRGINIA. *Special Provisions Relating to Women and Children.*—7, 12. *Summary.*—16.
- WISCONSIN. *General Legislation.*—2. *Special Factory Provisions.*—5. *Special Provisions Relating to Women and Children.*—7, 8, 11. *Summary.*—16, 17.
- WYOMING. *General Legislation.*—3. *Special Factory Provisions.*—6. *Special Provisions Relating to Women and Children.*—7, 8. *Summary.*—16, 17.

MODEL HOUSES.

The concentration of population in factory towns, and in the tenement quarters of great cities, is a marked feature of modern life. The evils incident to the ordinary tenement block, erected as a purely commercial enterprise, are well known. Their extent in Massachusetts and in the slums of American cities has been treated in the reports of this Bureau and elsewhere.* The erection of model tenements, as a distinct ethical and economic movement, has for its object the removal of these evils and the improvement of social conditions so far as they may be modified by the best possible arrangements for housing the people. The movement is now international. It has been in operation long enough to test its results, both ethical and financial, and is bound to be carried much further. The model tenement enterprises have been divided by Dr. E. R. L. Gould into five leading groups, as follows:

“1. Those that are conducted on a purely commercial basis.

2. Those which are semiphilanthropic in aim—that is, where the commercial element is by no means lost sight of, but where dividends are limited to a sum equal to, or slightly inferior to, normal commercial rates on investments of the highest class.

3. Philanthropic trusts, bequests, and gifts, where no division of profits occur and where the income earned is added to the capital in order to perpetuate operations.

* See *A Tenement House Census of Boston*, Reports of this Bureau, 1891 and 1892; *Rooms, Tenements, and Dwelling Houses*, Vol. I, *Decennial Census of Massachusetts*, 1895; and *The Slums of Great Cities*, Seventh Special Report of U. S. Commissioner of Labor, 1891. Also, *Report of the Tenement House Committee of New York*, 1894.

4. Municipal model enterprises, namely, where municipalities have built houses to rent, either for the sake of furnishing an example to private enterprises (which has usually been the case) or because there was an unwillingness on the part of builders to undertake the housing of people displaced from expropriated and insanitary areas.

5. Houses built by private employers of labor for the benefit of their help."

Model Block Buildings.

	NAMES.	Cities or Towns
1	Riverside Buildings (Improved Dwellings Company)	Brooklyn
2	Astral Apartments,	Brooklyn
3	Improved Dwellings Association,	New York
4	Tenement House Building Company,	New York
5	Boston Co-operative Building Company,	Boston
6	Rufus Ellis Memorial (Improved Dwellings Association),	Boston
7	Bunker Hill Terraces,	Boston
8	Marlborough Buildings (Improved Industrial Dwellings Company)	London
9	Artisans', Laborers' and General Dwellings Company,	London
10	Farringdon Road Buildings (Metropolitan Association for Improving the Dwellings of the Industrious Classes),	London
11	Brady Street Model Dwellings (Four Per Cent Industrial Dwellings Company)	London
12	Katharine Buildings (East End Dwellings Company)	London
13	Bolina Road Estate (Tenement Dwellings Company),	London
14	Peabody Donation Fund,	London
15	Brandon Street Model Buildings (Guinness Trust)	London
16	Victoria Square Artisans' Dwellings (Municipal Model Buildings)	Liverpool
17	Manchester Laborers' Dwellings Company,	Manchester
18	Improved Industrial Company,	Newcastle-upon-Tyne
19	Glasgow Workmen's Dwellings Company,	Glasgow
20	Block No. 1 (Municipal Model Dwellings),	Glasgow
21	Rosemount Association for Providing Dwellings for Working People,	Edinburgh
22	Edinburgh Association for Improving the Dwellings of the Poor,	Edinburgh
23	Well Court Model Tenements,	Edinburgh
24	Philanthropic Society of Paris,	Paris
25	Healthy Dwellings Company,	Marseilles
26	Alsace-Lorraine (Tenement Dwellings Company),	Rouen
27	Cheap Dwellings Company,	Lyons
28	Tenement Dwellings Company,	Frankfort on the Main
29	Berlin Mutual Building Company,	Berlin
30	Society for the Improvement of Tenements,	Berlin
31	Meyer's Model Tenement Buildings,	Leipsic
32	Salomon Fund,	Leipsic-Reudnitz
33	Co-operative Building Association,	Dresden
34	Saint John's Society,	Dresden
35	Savings and Building Society,	Hanover
36	Loest's Court,	Halle on the Saale
37	Society for Improving the Condition of the Working Classes,	Amsterdam
38	Amsterdam Association for Building Laborers' Dwellings,	Amsterdam
39	Saint Erik Building Company,	Stockholm
40	Stockholm Laborers' Dwellings Company,	Stockholm
41	State Railway,	Gothenburg
42	"New Houses" (Robert Dickson Fund),	Gothenburg

Dr. Gould, in the report from which we quote,* gives a full account of the leading model enterprises, covering their practical operation and their results, illustrated in many instances by plans and views of the buildings. In order to bring before those interested in the subject the location of these buildings, accompanied by data as to rents and profits, we have prepared the following tables, showing these facts connectedly and in form convenient for comparison :

Model Block Buildings.

States or Countries	RANGE OF WEEKLY RENTS				Percentages of Yearly Profit	
	Tenements of One Room	Tenements of Two Rooms	Tenements of Three Rooms	Tenements of Four Rooms		
New York . .	\$1.40	\$1.50 to \$2.30	\$2.10 to \$2.40	\$2.30 to \$3.60	5 to 6 (average)	1
New York . .	-	1.62 to 1.85	2.19 to 2.77	2.65 to 3.69	2.00 (average)	2
New York . .	-	1.44 to 1.79	2.08 to 3.46	2.54 to 3.23	6.00 (average)	3
New York . .	-	1.62 to 1.85	2.19 to 2.54	-	4.75 (net)	4
Massachusetts .	-	2.25 and 2.50	3.25	3.50 and 3.75	9.96 (net)	5
Massachusetts .	1.00 to 1.10	1.50 to 1.80	1.00 to 2.50	2.75 to 3.30	5.25 to 5.50 (net)	6
Massachusetts .	1.40 and 1.50	1.80 to 2.20	2.75	3.30 to 3.60	6.00 (net)	7
England . .	-	1.58 to 1.76	1.95 to 2.31	2.31 to 2.92	8+ (net)	8
England . .	0.61	0.97 to 1.22	1.46 to 2.07	-	-	9
England . .	-	1.22 to 1.34	1.46 to 1.76	1.64 to 2.31	-	10
England . .	0.37	-	0.97 to 1.34	1.34 to 1.70	6.25 (net)	11
England . .	0.37 to 0.85	1.10 to 1.22	-	-	5.25 to 5.50 (average)	12
England . .	-	-	1.58	-	-	13
England . .	0.49 to 0.85	0.79 to 1.46	1.03 to 1.83	1.70 to 1.83	3.25 to 3.50 (average)	14
England . .	0.43 to 0.67	0.85 to 1.09	1.09 to 1.34	-	3.00 (net)	15
England . .	0.49	0.85 to 1.03	1.22 to 1.34	-	2.60 (net)	16
England . .	0.49 and 0.73	0.67 to 1.16	-	-	-	17
Scotland . .	0.55 to 0.61	0.91 to 1.10	-	-	-	18
Scotland . .	0.43	0.61 to 0.65	-	-	3.85 (net)	19
Scotland . .	0.79	0.97	1.41	-	3.20 (net)	20
Scotland . .	-	0.79	0.85 to 1.12	-	-	21
Scotland . .	0.50 to 0.63	0.84 to 0.88	-	-	-	22
Scotland . .	-	0.66	1.07	-	3+ (net)	23
France . .	-	0.97 to 1.16	0.97 to 1.45	-	3.19 (net)	24
France . .	-	-	-	-	3.89 (net)	25
France . .	0.32 to 0.42	0.72 to 0.96	0.74 to 1.28	1.41 to 1.67	1.40 (net)	26
France . .	-	0.36 to 0.49	0.65 to 0.96	-	4.00 (net)	27
Germany . .	-	0.77 to 0.88	1.10 to 1.32	-	4.24 (net)	28
Germany . .	-	0.69 to 0.94	1.01 to 1.44	-	-	29
Germany . .	0.42 to 0.77	0.56 to 1.40	0.82 to 3.47	1.72 to 3.49	-	30
Germany . .	0.19 to 0.29	-	0.60 to 0.73	0.71 to 0.92	3.00 (net)	31
Germany . .	-	0.62 to 0.64	0.76	-	-	32
Germany . .	-	-	0.73 to 1.01	0.91 to 1.45	4.70 (net)	33
Germany . .	0.26 to 0.38	0.32 to 0.56	0.58 to 1.00	0.71 to 1.19	5.60 (av. gross)	34
Germany . .	-	-	0.55 to 0.71	0.73 to 0.96	4.50 (net)	35
Germany . .	-	-	0.49 to 0.69	1.03	-	36
Holland . .	0.92	1.21	-	-	-	37
Holland . .	0.87 to 1.01	1.10 to 1.50	-	-	-	38
Sweden . .	0.85	0.93	-	-	-	39
Sweden . .	0.57 to 0.62	0.77 to 0.88	-	-	-	40
Sweden . .	-	0.49 to 0.93	-	1.55 to 2.47	-	41
Sweden . .	0.43 to 0.53	0.74 to 0.77	-	-	-	42

* *The Housing of the Working People.* Eighth Special Report of the U. S. Commissioner of Labor, 1895.

Model Small Houses.

NAMEs.	Cities or Towns	States or Countries	Annual Rentals
S. D. Warren and Company,	Cumberland Mills	Maine	\$44.40 to \$189.60
Howland Mills Corporation,	New Bedford	Massachusetts	102.00 to 120.00
Willimantic Linen Company,	Willimantic	Connecticut	84.24 to 100.36
Pullman's Palace Car Company,	Pullman	Illinois	180.00 to 600.00
Merrimac Manufacturing Company,	Lowell	Massachusetts	116.24 to 120.24
Municipal Artisans' Dwellings,	Huddersfield	England	42.12 to 75.92
James Smieton and Sons,	Carnoustie	Scotland	36.90
Pilrig Model Dwellings,	Edinburgh	Scotland	25.55 to 47.45
Workingmen's Dwellings Company of Passy-Auteuil,	Paris	France	57.90
Havre Workingmen's Dwellings Company,	Havre	France	82.99
The Cottage,	Lyons	France	55.56 to 60.24
Rouen Cheap Dwellings Company,	Rouen	France	39.95
Solvay and Company,	Varangeville-Dombasle	France	27.84
M. Menier,	Noisiel	France	28.95
Belfort Cheap Dwellings Company,	Belfort	France	115.80
Saint-Gobain Manufacturing Company,	Saint Gobain	France	15.00 to 23.16
Mining Company of Anzin,	Anzin	France	12.74
Blanz Mining Company,	Blanzay	France	27.80
Mining Company of Lens,	Lens	France	12.74
Paris, Lyons and Mediterranean Railway Company,	Laroche	France	27.02
Northern Railway,	Bourget	France	111.16
M. Schneider,	Le Creuzot	France	11.58 to 18.53
D. Walter-Seitz,	Granges	France	22.58
Lille Real Estate Company,	Lille	France	39.36 to 46.32
M. Fanien,	Lillers	France	17.56 to 25.09
Bureau of Public Relief,	Antwerp	Belgium	62.73
Bureau of Public Relief,	Wavre	Belgium	23.16 to 27.79
Vieille-Montagne Company,	Chenée	Belgium	15.44 to 19.30
Iron and Steel Manufacturing Company,	Marcinelle and Couillet	Belgium	38.60
Mariemont Mining Company,	Mariemont and Baseoup	Belgium	13.92 to 19.08
Brussels Workingmen's Dwellings Company,	Brussels	Belgium	38.48 to 51.48
Verviers Workingmen's Dwellings Company,	Verviers	Belgium	46.32
Cité Hoyaux,	Mons	Belgium	34.80 to 41.64
Grand-Hornu Mining and Manufacturing Company,	Mons	Belgium	23.92
Bois-du-Luc Mining Company,	Bois-du-Luc	Belgium	11.64 to 21.96
Barmen Workingmen's Dwellings Company,	Barmen	Germany	54.74
Mutual Building Company,	Landsburg on the Warta	Germany	49.50
Marine Service of the German Empire,	Friedrichsort	Germany	137.08
Mutual Building Company,	Neuss	Germany	95.20
Mulhouse Workingmen's Dwellings Company,	Mulhouse	Germany	32.42 to 36.19
Friederich Krupp,	Essen	Germany	152.32 to 171.36
D. Peters and Company,	Neviges	Germany	49.50
Royal Prussian State Railway,	Leinhausen (Hanover)	Germany	39.27
Municipal Model Dwellings,	Duisburg	Germany	57.12
Gothenburg Savings Bank,	Gothenburg	Sweden	*73.92 to *167.28

* Rent goes towards payment of houses.

The characterization of the different enterprises as "commercial," "semiphilanthropic," "manufacturing," etc., is due to Dr. Gould in accordance with the system of grouping previously mentioned. The designation "manufacturing" meaning that the erection of the building is due to firms or companies engaged in manufacturing, the houses being

built for the purpose of providing model tenements for employes, while "municipal," applied to certain enterprises in Great Britain, implies that the buildings were erected by the municipality under the "Artisans' and Laborers' Dwellings Act of 1875," "The Glasgow Improvement Act of 1866," etc. Dr. Gould very pertinently remarks, "There is a higher test of social economic utility than the size of dividends to stockholders. Such utility is disclosed by the well-known fact that rentals charged in model dwellings are almost universally lower than those exacted for fairly similar accommodations in the neighborhood. * * * The provision of first class homes is of great importance. If they can be provided at a lower rate than ordinary, and yet bring a normal commercial return, nothing further can be desired. Where model companies have not succeeded there is generally some good reason for it. There is for them, undoubtedly, in every community a wide sphere of work."

We also present the following table relating to model lodging houses, compiled from data derived from Dr. Gould's report:

Model Lodging Houses.

NAMES.	Cities or Towns	States or Countries	Charge for One Night's Lodging
Model Lodging Houses,	Baltimore . .	Maryland .	\$0.15 to \$0.30
Municipal Lodging Houses,	Glasgow . .	Scotland .	0.06 to 0.09
Burns' Homes,	Glasgow . .	Scotland .	0.07 to 0.12
Grass Market Model Lodging House Company,	Edinburgh . .	Scotland .	0.08 to 0.12
London County Council Lodging Houses,	London . .	England .	0.10
Rowton House,	London . .	England .	0.12
Model Lodging Houses,	Huddersfield .	England .	0.06 to 0.12

Possibly the most interesting phase of the model tenement movement in great cities is that representing municipal initiative. This has reached its widest development in Great Britain. Based upon the exercise of the police power in the expropriation for sanitary purposes of considerable areas of territory covered by houses of the poorest character, it was led, almost inevitably, by the peculiar circumstances of the cases in which it was applied, to go very much farther, and undertake the erection and management of model buildings.

The example of Glasgow is usually cited as typical, although nearly every large city in Great Britain has done something in this direction. It was especially necessary in Glasgow to provide housing for those who were turned out by the destruction of the old buildings. In that city a very large proportion of the population lives in tenements or apartment houses, and unless provision was made for those who were deprived of shelter by the expropriation of condemned estates much hardship would ensue, or overcrowding in other districts would be inevitable. The Glasgow Building Act therefore authorizes the purchase of land by the city, and either the sale or leasing of the same to those who will undertake to

erect thereon dwellings for the artisan or working classes, or, failing this, the construction of such buildings by the city itself. The corporation of Glasgow had expended in this direction up to the end of the fiscal year 1893, for property acquired, \$9,705,414. It has disposed of property amounting to \$4,902,568: the value of property remaining being \$2,653,760, thus showing a deficit of \$2,149,086. The receipts from ratepayers upon assessments made since 1866 on account of the enterprises were \$2,812,188. There was also an excess of liabilities over assets, which would have to be met by assessments, amounting to \$692,573: making the total cost to ratepayers amount to \$3,504,761. These figures show something of the magnitude of the operations. Only a part of the money was expended in buildings, however, the net result including the acquirement of Alexandra Park and the formation of 29 new streets and improvement of 25 old streets. The results are plainly shown in improved morals and superior sanitary conditions. Under the act, not more than 500 persons could be displaced by destruction of insanitary houses, within any six months unless suitable provision was made for rehousing them within that time.

The English "Housing of the Working Classes Act," 1890 (53 and 54 Victoria, Chapter 70), repealing previous acts of similar character, and putting in definite form everything of value that previous acts had contained, besides extending the powers of municipal corporations with reference to the expropriation and reclamation of insanitary tenement house districts, must serve as a model for similar legislation elsewhere. The act is remarkably full and explicit in its provisions.

It provides that whenever buildings are unfit for habitation on account of crowded arrangement, insanitary condition of streets or buildings, including insufficient light, air, or ventilation, so that they become dangerous or injurious to the health of their inhabitants or to the health of the inhabitants of neighboring buildings, and that the evils cannot be remedied by reconstruction or rearrangement, the local authorities may by methods defined in the act, proceed to make a scheme for the improvement of the area. The act states how the official representation is to be made, upon which proceedings are taken, and provides for the submission of maps, particulars, and estimates. It provides also that accommodations must be found for the inhabitants of buildings displaced by the proposed plan. Arrangement is made for public advertisement and notice to owners and occupiers, and also for the voluntary ameliorations of the specified estate to be made by the owners under the supervision of the authorities; but in case this voluntary action is not taken by the owners, the act contemplates compulsory purchase and action by the authorities.

In commenting upon this act, Dr. Gould says, "It is important to note that special care is taken by this law of the housing of working people. All undue hardship accompanying their displacement is effectually guarded against. As working people cannot be displaced without

more or less inconvenience, cordial recognition is given to the necessity of their being properly cared for within the district which, from reasons of contiguity to employment or special facilities of access, they have chosen to make their residence. In this respect the act is in a measure unique. These provisions furnish also the explanation of the fact that some English cities in undertaking the improvement of insanitary areas have built and rented house accommodations for working people. These requirements have been followed, not for the purpose of engaging in socialistic schemes, but with the idea of recognizing the justice of the workingman's necessity of being near his place of toil. In almost every instance, if not in every case, steps have first been taken to induce private parties to purchase the land and build suitable dwellings. When these efforts have failed, after a threefold attempt has been made, as in London, the municipalities themselves intervene to fulfil the mandatory provisions of the law. Individuals and building companies have usually asserted that the requirements as to new buildings were such as to preclude the possibility of proper financial return upon the investment. In many instances at least the land has been offered at a figure from which the cost of demolition has been eliminated. This practice, which seems entirely equitable, is based on the view that the whole cost of improvement should not appear in the rent charged to future tenants. The expropriation and demolition of insanitary areas entail benefit to the entire community, and it is but fair that the community as a whole should bear a moderate portion of the cost."

The act is very complete in its provision of methods of assessment of damages and values antecedent to payments to be made by the municipality for expropriating property, but it seems to guard against the payment of unreasonable sums for property which may be taken. While it provides for municipal action in the provision of houses or tenements for those who are displaced by the removal of insanitary buildings, it is explicit in requiring efforts to dispose of the land to private parties or to building companies before direct municipal action is taken toward building houses and operating on public account.

The leading features of the act are the fixing of responsibility upon owners for the sanitary condition of their property, and in case the owners fail to maintain such property under sanitary conditions, the exercise of the police power to the fullest extent in expropriating the estates. These principles are not new in English law, and are simply an extension of principles embodied in our statutes respecting Boards of Health; but the law goes further than this in providing for the rehousing of those who would be deprived of shelter by the operation of these principles. In this respect it at first glance passes beyond the mere exercise of the police power and enters upon a field of municipal activity, which, at first glance, seems socialistic in its character. But a careful study of the provisions of the act shows that what is done in this direction is simply to provide

against injurious results arising from the exercise of the police power with respect to sanitation. As Dr. Gould remarks, "The law is distinctly a measure of protection and only incidentally one of social advance. The moral to be derived from its consideration is that an expensive awakening must come sooner or later to all communities where fundamental sanitary requisites in dwelling construction have been neglected. This legislation gives evidence that the interests of property will not henceforth be considered paramount to those of human life."

In the State of New York, by Chap. 567 of 1895, authority is given to the Board of Health in the city of New York to condemn tenement houses which are found defective upon sanitary grounds, or for reasons which make adjacent buildings unfit for human habitation. The provisions of the law are as follows: "Whenever in the opinion of the board of health of the health department of the city of New York, any building or part thereof in the city of New York, an order to vacate which has been made by said board, is, by reason of age, defects in drainage, plumbing, infection with contagious disease, or ventilation, or because of the existence of a nuisance on the premises, which is likely to cause sickness among its occupants or among the occupants of other property in the city of New York, or because it stops ventilation in other buildings, or otherwise makes or conduces to make other buildings adjacent to the same unfit for human habitation, or dangerous or injurious to health; or because it prevents proper measures from being carried into effect for remedying any nuisance injurious to health or other sanitary evils in respect of such other buildings; so unfit for human habitation that the evils in or caused by said building cannot be remedied by repairs or in any other way except by the destruction of said building, or of a portion of the same, said board of health may condemn the same and order it removed, provided the owner or owners of said building can demand a survey of said building in the manner provided for in case of unsafe buildings, and may institute proceedings in the supreme court in the county of New York for the condemnation of said building. Said proceedings shall be instituted and carried on in the manner prescribed by the code of civil procedure, except as modified by this act. Upon the institution of said proceedings, the owner of said building or any person interested therein may in his answer dispute the necessity of the destruction of said building or part thereof as the case may be. In such case, the court shall not appoint commissioners unless proof is made of the necessity of said destruction. In such proceeding evidence shall be receivable by the commissioners to prove:

1. That the rental of the building was enhanced by reason of the same being used for illegal purposes or being so overcrowded as to be dangerous or injurious to the health of the inmates; or
2. That the building is in a state of defective sanitation, or is not in reasonably good repair; or

3. That the building is unfit, and not reasonably capable of being made fit, for human habitation ; and, if the commissioners are satisfied by such evidence, then the compensation —

(a) Shall in the first case, so far as it is based on rental, be based on the rental of the building, as distinct from the ground rent, which would have been obtainable if the building was occupied for legal purposes and only by the number of persons whom the building was under all the circumstances of the case fitted to accommodate without such overcrowding as is dangerous or injurious to the health of the inmates ; and

(b) Shall in the second case be the amount estimated as the value of the building if it had been put into a sanitary condition, or into reasonably good repair, after deducting the estimated expense of putting it into such condition or repair ; and

(c) Shall in the third case be the value of the materials of the buildings.”

There is nothing in this law, however, which is analogous to the English law with respect to providing by municipal action for the erection of model buildings.

ARBITRATION AND CONCILIATION.

The State Board of Arbitration and Conciliation of the Commonwealth of Massachusetts was established June 2, 1886, by Chap. 263, Acts of 1886. The original law has been amended by Chap. 269, Acts of 1887 ; Chap. 261, Acts of 1888 ; Chap. 385, Acts of 1890 ; and Chap. 382, Acts of 1892. The text of the existing laws may be found in the Report of the Board for the year ending December 31, 1896.

Since its establishment the Board has issued 11 annual reports. The object of this article is simply to show, in a condensed form, the work of the Board from 1886 to 1896, and to bring the results secured into comparison with similar information published by the Director of the Department of Labor of the Republic of France.

The Board, in its Report for 1896, presents the following valuable information regarding the condition of arbitration and conciliation in the different States of the Union :

Twenty-four states of the union have made constitutional or statutory provision for the settlement of industrial disputes. In twenty-one states the laws provide for mediation between parties by arbitration boards of one kind or another. Of these, the statutes of thirteen states contemplate the administration of conciliation and arbitration laws by permanent state boards ; in Michigan, however, where such a law exists, the

Aggregating these industrial conflicts from 1886 to 1894, we obtain a total of 1,380 of which 19.35 per cent was submitted to the Board, 76.09 per cent resulted in strikes and 4.56 per cent in lockouts.

We next present a table showing the geographical locations of the work of the Board, together with the names of the principal industries affected in each city and town.

COUNTIES, CITIES, AND TOWNS.	Number of Industrial Con- troversies	Principal Industries Involved
BERKSHIRE.	7	- - -
Lee,	1	Stone.
NORTH ADAMS,	6	Boots and shoes, 5.
BRISTOL.	16	- - -
FALL RIVER,	10	Cotton goods, 8.
NEW BEDFORD,	6	Cotton goods, 5.
ESSEX.	78	- - -
Amesbury,	1	Cotton goods.
BEVERLY,	3	Boots and shoes, 3.
GLOUCESTER,	2	Shipbuilding, 1; stone, 1.
Groveland,	1	Woollen goods.
HAVERHILL,	10	Boots and shoes, 10.
LAWRENCE,	9	Cotton, woollen, and other textiles, 8.
LYNN,	43	Boots and shoes, 38.
Marblehead,	1	Boots and shoes.
Methuen,	1	Cotton goods.
NEWBURYPORT,	2	Boots and shoes, 2.
North Andover,	2	Clothing, 1; cotton, woollen, and other textiles, 1.
SALEN,	3	Boots and shoes, 3.
HAMPDEN.	9	- - -
HOLYOKE,	2	Paper and paper goods, 1; printing, 1.
Monson,	2	Stone, 2.
Palmer,	2	Carpetings, 1; cotton goods, 1.
SPRINGFIELD,	2	Building, 2.
Westfield,	1	Whips, lashes, and stocks.
HAMPSHIRE.	3	- - -
Easthampton,	1	Rubber and elastic goods.
South Hadley,	1	Cotton goods.
Ware,	1	Woollen goods.
MIDDLESEX.	69	- - -
Ashland,	3	Leather, 2; boots and shoes, 1.
Billerica,	1	Woollen goods.
CAMBRIDGE,	6	Printing, publishing, and bookbinding, 2; musical instru- ments and materials, 2.
Dracut,	1	Woollen goods.
Framingham,	4	Boots and shoes, 3.
Hopkinton,	1	Boots and shoes.
Hudson,	6	Boots and shoes, 5.
LOWELL,	4	Cotton, woollen, and other textiles, 3.
MARLBOROUGH,	23	Boots and shoes, 22.
Natick,	4	Boots and shoes, 4.
NEWTON,	2	Silk and silk goods, 2.
Pepperell,	1	Boots and shoes.
Stoneham,	3	Boots and shoes, 3.
Wakefield,	3	Furniture, 2.
WALTHAM,	2	Clocks, watches, and jewelry, 1; cotton goods, 1.
Wayland,	1	Boots and shoes.
WOBBURN,	4	Leather, 2.

COUNTIES, CITIES, AND TOWNS.	Number of Industrial Con- troversies	Principal Industries Involved
NORFOLK.	23	- - -
Avon,	1	Boots and shoes.
Braintree,	1	Rubber and elastic goods.
Canton,	1	Silk and silk goods.
Hyde Park,	1	Rubber and elastic goods.
Medfield,	1	Straw and palm leaf goods.
Medway,	4	Boots and shoes, 4.
Millis,	1	Boots and shoes.
QUINCY,	3	Stone, 3.
Randolph,	6	Boots and shoes, 6.
Weymouth,	4	Boots and shoes, 4.
PLYMOUTH.	32	- - -
Bridgewater,	1	Metals and metallic goods.
BROCKTON,	15	Boots and shoes, 15.
Middleborough,	2	Boots and shoes, 2.
Norwell,	1	Boots and shoes.
Plymouth,	1	Cooking, lighting, and heating apparatus.
Rockland,	6	Boots and shoes, 6.
Whitman,	6	Boots and shoes, 6.
SUFFOLK.	71	- - -
BOSTON,	69	Building, 12; boots and shoes, 10; clothing, 7.
CHELSEA,	2	Machines and machinery, 1; rubber and elastic goods, 1.
WORCESTER.	22	- - -
Auburn,	1	Worsted goods.
Clinton,	1	Cotton goods.
FITCHBURG,	3	Cotton goods, 2; building, 1.
Gardner,	1	Furniture.
Grafton,	1	Boots and shoes.
Milford,	4	Stone, 3; boots and shoes, 1.
Sutton,	1	Cotton goods.
Webster,	1	Boots and shoes.
Westborough,	6	Boots and shoes, 6.
WORCESTER,	3	Boots and shoes, 1; building, 1; railroad construction and equipment, 1.
THE STATE,	330	- - -

The work of the Board was located in 10 of the 14 counties in the State. There were no disputes submitted from the counties of Barnstable, Dukes, Franklin, and Nantucket. The County of Essex has the largest number, 78, in any county. If we consider Fall River with 10, Haverhill with 10, Lynn with 43, Marlborough with 23, Brockton with 15, and Boston with 69, we find that these six cities called upon the Board 170 times, or 51.52 per cent of the total number.

The next presentation is by industries.

INDUSTRIES INVOLVED IN INDUSTRIAL CONTROVERSIES.	Number of Establishments Involved
Boots and shoes,	170
Boxes (paper and wooden)	1
Building,	19
Carpetings,	2
Clocks, watches, and jewelry,	1

INDUSTRIES INVOLVED IN INDUSTRIAL CONTROVERSIES.	Number of Establishments Involved
Clothing,	9
Cooking, lighting, and heating apparatus,	2
Cordage and twine,	1
Cotton, woollen, and other textiles,	40
Fertilizers,	1
Flax, hemp, jute, and linen goods,	2
Food preparations,	3
Furniture,	8
Glue, isinglass, and starch,	1
Hosiery and knit goods,	1
Leather,	6
Liquors: malt, distilled, and fermented,	2
Machines and machinery,	4
Metals and metallic goods,	6
Musical instruments and materials,	4
Paper and paper goods,	1
Printing, publishing, and bookbinding,	6
Railroad construction and equipment,	8
Rubber and elastic goods,	4
Shipbuilding,	6
Silk and silk goods,	3
Stone,	12
Straw and palm leaf goods,	1
Whips, lashes, and stocks,	1
Miscellaneous,	5
TOTALS,	330

This is an interesting exhibit. The boot and shoe industry has a pronounced lead with 170 controversies, or 51.52 per cent of the total number. This number and percentage are identical with those for the six leading cities as shown in the preceding table. The textile industries come next with 49, then building trades 19, and the stone industry 12. These four industries aggregate 250 or 75.76 per cent of the whole number submitted.

The next table shows, in detail, classified by industries, the matters in dispute, the number of establishments involved, and the manner of settlement.

INDUSTRIES INVOLVED IN INDUSTRIAL CONTROVERSIES AND MATTERS IN DISPUTE.	Number of Establishments Involved	How Settled
BOOTS AND SHOES.	170	- - -
Breach of agreement on part of firms, . . .	2	The Board decided the action a violation of the promise of the firms, 2.
Discharge of from one to five employes, . . .	5	Both sides adopted recommendations of Board, the discharged were re-instated, 3; settled by agreement, 1; strike declared off with no agreement, 1.
Discrimination against union employes in favor of non-unionists,	1	Not left to decision of Board, employer would not confer.
Employes in a non-union factory joined the union,	1	Non-unionists employed.
Employes forbidden to join any labor organization,	1	Settled in favor of employes; Board's decision adopted.
Employment of non-union men,	1	Agreement between company and K. of L.

INDUSTRIES INVOLVED IN INDUSTRIAL CON- TROVERSIES AND MATTERS IN DISPUTE.	Number of Es- tablish- ments Involved	How Settled
BOOTS AND SHOES — CON.		
Hours and wages,	2	No satisfaction rendered employes, 2.
Lasters' Union,	1	No settlement.
Movement to establish "free-shops,"	1	Board advised men to return to work; strike broken up.
Posting a "banner-boy" in front of factory for lasters to keep away,	1	Condemned as contrary to law.
Prices and price-lists,	20	Price-lists submitted by Board adopted by all parties, 12; settled by those concerned, 5; employes agree to work at reduced prices, 2; no settlement, 1.
Refusal of employer to re-engage former em- ploye,	1	Re-instatement of all strikers wishing to return.
Refusal of employers to discharge employes, obnoxious to others,	4	Settled by employers and K. of L., 3; advice of Board adopted, 1.
Wages: reduction of, or refusal to increase,	126	Price lists and recommendations of Board accepted, 68; agreeable settlement between parties concerned without services of Board, 34; no settlement by con- ference or arbitration, 18; new employes hired, 3; settled in favor of employes, 3.
Wages and discharge of four employes,	1	Board's recommendations accepted.
Wages and improved conditions,	1	Board's recommendations accepted.
Not stated,	1	Board's recommendations accepted.
BOXES (PAPER AND WOODEN).		
Wages,	1	- - -
	1	Price-lists submitted by Board adopted.
BUILDING.		
Discharge of non-union men,	19	- - -
Employment of non-union men,	1	Settled in favor of employes.
Hours,	4	Settled by those concerned, 3; by advice of Board, 1.
Hours and refusal of employers to employ union men only,	3	No settlement, 3.
	1	No satisfaction rendered employes; new men were hired.
Hours and wages,	5	No settlement, 2; by advice of Board, 1; in favor of strikers, 1; no settlement by conference or arbitra- tion, 1.
Hours and wages, and refusal of employers to employ union men only,	1	No settlement.
Refusal of employers to sign agreements of Plumbers' Union,	1	Settled by those concerned.
Wages: refusal to increase,	3	No settlement, 1; by compromise, 1; by advice of Board, 1.
CARPETINGS.		
Wages: refusal to increase, and to re-instate discharged employe,	2	- - -
	1	Settled by those concerned.
Wages: refusal to increase, or to run mills on full time,	1	Settled by strikers.
CLOCKS, WATCHES, AND JEWELRY.		
Wages,	1	- - -
	1	Closed with no agreement, strikers asking re-employ- ment on same terms.
CLOTHING.		
Hours and wages,	9	- - -
	2	Settled in favor of employes, 1; by agreement be- tween company and unions, 1.
Lockout threatened on account of boycott then in operation,	1	No lockout occurred; much progress toward settle- ment made by help of Board.
Refusals of employers to agreements of union,	1	Agreement between employers and union
Wages: reduction of, or refusal to increase,	5	No settlement, 2; by those concerned, 1; by the em- ployers, 1; unsatisfactorily to employes, new men being employed in their places, 1.
COOKING, LIGHTING, AND HEATING APPA- RATUS.		
Wages: refusal to increase,	2	- - -
	2	Settled by those concerned, 1; by acceptance of deci- sion of Board, 1.
CORDAGE AND TWINE.		
Cruelty of foreman, and refusal of employers to re-instate a workman,	1	- - -
	1	No settlement known of by Board.
COTTON, WOOLLEN, AND OTHER TEXTILES.		
Hours,	40	- - -
	1	Settled by those concerned.

INDUSTRIES INVOLVED IN INDUSTRIAL CONTROVERSIES AND MATTERS IN DISPUTE.	Number of Establishments Involved	How Settled
COTTON, WOOLLEN, AND OTHER TEXTILES —Con.		
Wages: reduction of, or refusal to increase, .	35	By advice of Board, 8; by employes returning to work with same or reduced wages, 7; no settlement, 6; by those concerned, 6; in favor of employes, 5; no satisfaction to employes, 2; by agent of mill, 1.
Wages and discharge of employe,	1	No settlement.
Wages and excessive fines,	2	Satisfactorily to employes, after conference with Board, 1; by those concerned, 1.
Work: grievances in regard to,	1	In favor of employes.
FERTILIZERS.	1	-
Wages: refusal to increase,	1	Settled by advice of Board.
FLAX, HEMP, JUTE, AND LINEN GOODS.	2	-
Wages: reduction of,	2	Settled by agreement, 1; in favor of strikers, 1.
FOOD PREPARATIONS.	3	-
Hours and wages,	1	No settlement.
Wages: refusal to increase,	2	No settlement, 1; by those concerned, through advice of Board, 1.
FURNITURE.	8	-
Hours,	5	Settled in favor of employes, 3; by those concerned, 1; no settlement, 1.
Wages: reduction of,	3	Settled by those concerned, 2; by settlement, 1.
GLUE, ISINGLASS, AND STARCH.	1	-
Wages,	1	Settled by those concerned.
HOSIERY AND KNIT GOODS.	1	-
Wages: reduction of,	1	Settled unfavorably to employes.
LEATHER.	6	-
Prices,	2	Settled by agreement, 1; by acceptance of decision of Board, 1.
Wages: reduction of,	4	By advice of Board, 2; no settlement, 1; by those concerned, 1.
LIQUORS: MALT, DISTILLED, AND FERMENTED.	2	-
Hours and wages,	1	Settled by agreement between employers and union.
Hours and wages, and refusal of firms to employ union men only,	1	By those concerned.
MACHINES AND MACHINERY.	4	-
Hours,	2	Settled in favor of employes, 1; by those concerned, through advice of Board, 1.
Hours and wages,	1	No settlement.
Refusal of employer to discharge an obnoxious employe,	1	Settled by those concerned.
METALS AND METALLIC GOODS.	6	-
Hours and wages,	2	No settlement, 2.
Refusal of employers to discharge an obnoxious employe,	1	No settlement.
Wages,	3	No settlement, 1; in favor of employes, 1; unfavorable to employes, 1.
MUSICAL INSTRUMENTS AND MATERIALS.	4	-
Hours and wages,	2	No settlement, 1; settled by those concerned, 1.
Wages: reduction of, or refusal to increase, .	2	No settlement, 2.
PAPER AND PAPER GOODS.	1	-
Hours,	1	Recommendations of Board accepted.
PRINTING, PUBLISHING, AND BOOKBINDING.	6	-
Discharge of union men,	1	No settlement.
Prices,	1	No settlement.
Strike to enforce demands of union, . . .	1	Settled satisfactorily through influence of Board.
Strike in sympathy with bookbinders, . .	1	Settled satisfactorily.
Wages,	2	By advice of Board, 1; no settlement, 1.

INDUSTRIES INVOLVED IN INDUSTRIAL CONTROVERSIES AND MATTERS IN DISPUTE.	Number of Establishments Involved	How Settled
RAILROAD CONSTRUCTION AND EQUIPMENT.	8	- - -
Discharge of an employé,	1	No settlement.
Hours and discharge of employés,	1	No satisfaction to employés.
Hours and wages,	2	No satisfaction to employés, 2.
Wages: reduction of, or refusal to increase, .	4	Decision of Board accepted, 2; no satisfaction to employés, 1; in favor of employés, 1.
RUBBER AND ELASTIC GOODS.	4	- - -
Wages: reduction of, or refusal to increase, .	4	No settlement, 3; settled by those concerned, 1.
SHIPBUILDING.	6	- - -
Hours and wages,	3	By decision of Board, 2; no satisfaction to employés, 1.
Refusal of union men to work with non-union men,	1	By those concerned.
Wages: reduction of, or refusal to increase, .	2	Settled by Board, 1; by those concerned, 1.
SILK AND SILK GOODS.	3	- - -
Hours and wages,	1	No settlement.
Wages: reduction of,	2	By advice of Board, 1; no settlement, 1.
STONE.	12	- - -
Hours and wages,	4	By those concerned, 1; by decision of Board, 1; by employers and union, 1; by those concerned, through advice of Board, 1.
Opposition to an overseer,	1	By those concerned.
Prices,	1	Price-list submitted by Board adopted.
Refusal of employers to renew agreement, and employment of non-union men,	1	Settled in favor of employés.
Wages,	5	Settled by those concerned, 2; by recommendations of Board, 1; by terms offered by company, 1; no settlement, 1.
STRAW AND PALM LEAF GOODS.	1	- - -
Discharge of 27 employés, because of their attendance at a church whose minister was personally hostile to firm,	1	Because of the peculiar nature of this instance, the Board did not feel authorized to act.
WHIPS, LASHES, AND STOCKS.	1	- - -
Wages: reduction of,	1	Settled by advice of Board.
MISCELLANEOUS.	5	- - -
Wages: reduction of, or refusal to increase, .	5	No settlement, 3; Board's recommendation in favor of employés, 1; by those concerned, 1.

The settlements may be condensed under three general heads as shown in the table which follows:

SETTLEMENTS OF MATTERS IN DISPUTE.	SETTLEMENTS AS SPECIFIED	
	Number	Percentages
By those concerned,	136	41.22
Recommendations of Board accepted,	123	37.27
No agreement,	71	21.51
TOTALS,	330	100.00

This table shows the work of the Board for 11 years. Out of 330 controversies submitted to the Board, 123, or 37.27 per cent, were settled in accordance with the recommendations of the Board, and these figures mark the measure of arbitration. In 136 controversies, or 41.22

per cent, the employers and employés, after stating their cases, came to an agreement among themselves. These figures show the influence of conciliation. The successful work of the Board may therefore be considered as being represented by 259 instances out of 330, or 78.49 per cent. No agreement was reached in 71 cases, or 21.51 per cent, neither arbitration nor conciliation having sufficient influence to secure a mutually satisfactory settlement.

From a report made April 1, 1897, by the Director of the Labor Department to the Minister of Commerce, Industry, Posts, and Telegraphs of the Republic of France, we translate certain information relative to strikes, and arbitration and conciliation in that country. The first table shows the number of strikes from 1891 to 1896.

CLASSIFICATION.	YEARS					
	1891	1892	1893	1894	1895	1896
Number of strikes,	267	261	634	391	405	476
Number of strikes in textile industries, . . .	104	79	233	112	141	197
Department of the { Number of strikes, . . .	68	54	121	68	101	165
North { Number of strikes in textile industries,	53	39	99	49	82	140

The whole number of strikes in the six years considered was 2,434, the largest number, 634, occurring in the year 1893. A reference to page 28, *ante*, shows that from 1886 to 1894, the largest number of strikes in Massachusetts in any one year was also in 1893, although the preponderance was not so marked as in the French table.

The French law in relation to arbitration and conciliation went into effect December 27, 1892, so the results under the law can be compared directly with the strike returns for 1893 to 1896, both years inclusive. In those four years there were 1,906 strikes in France. During these years there were 399 recourses to arbitration and conciliation. The following table shows the distribution by years, and also shows by whom the initiative was taken :

INITIATIVE TAKEN BY —	YEARS				TOTALS
	1893	1894	1895	1896	
The employers,	5	4	2	4	15
The employés,	56	51	46	57	210
Both parties,	2	2	3	4	11
Justices of the peace,	46	44	34	39	163
TOTALS,	109	101	85	104	399

It will be noticed that more than half of the appeals were made by the employés, while the authorities took the initiative in 40.85 per cent of the appeals.

We are now able to ascertain the proportion of industrial controversies submitted for arbitration or conciliation in France, in the four years from 1893 to 1896. The number of strikes was 1,906 and the number of references 399, or a total of 2,305. This shows 17.31 per cent submitted for consideration according to the French law. In Massachusetts, from 1886 to 1896, the percentage submitted was 19.35.

We next present a classification by industries and occupations for the 399 recourses submitted according to French law.

INDUSTRIES AND OCCUPATIONS.		Number of Recourses to Arbitration and Conciliation
Bakers,		6
Basket makers,		1
Bird charmers and catchers,		1
Bottlers of liquors,		1
Brick makers,		2
Brush makers,		1
Building,		86
Butchers,		1
Cabinet makers,		2
Carpenters,		1
Carriage makers,		2
Chair makers,		1
Chemical preparations,		1
Coachmen (private companies),		1
Coopers,		1
Corset makers,		1
Dealers in sand,		1
Expressmen,		1
Fishermen,		1
Florist-gardeners,		2
Gas workers,		1
Glass makers,		4
Hatters,		4
Leather and skins,		20
Manufacture of cement,		1
Manufacture of dynamite,		1
Marble workers,		2
Metal workers,		46
Military construction employés,		1
Mining and quarrying,		30
Paper mill operatives,		2
Petroleum refiners,		1
Porcelain makers,		6
Printers,		2
Saw-mill operatives,		2
Shoemakers (wooden),		4
Stevedores,		4
Stone workers,		1
Textile employés,		142
Tobacco workers,		1
Transportation employés,		1
Turners,		1
Woodcutters,		8
TOTALS,		399

The industries most numerously represented are building trades, 86 ; leather and skins, 20 ; workers in metals, 46 ; mining and quarrying, 30 ; and the textile industries, 142. These five industries represent 324, or 81.20 per cent of the whole number.

As stated previously, the record of strikes in Massachusetts for the years 1895 and 1896 has not yet been officially prepared. We present, in closing, an interesting table showing the number of strikes in France in 1896, classified by industries, together with other valuable information on related points.

Proportion of the Number of Strikers in 1896 to the Total Working Population, According to the French Census of 1891.

INDUSTRIES.	NUMBER OF		Proportion per 1000 Workmen in each Industry	Number of Working Days Lost
	Strikes	Strikers		
Agriculture (woodlands and fisheries),	12	5,571	1.23	32,735
Building,	37	3,597	10.65	49,497
Chemical preparations,	5	941	15.53	2,544
Clothing and clothes cleansing,	13	573	0.81	7,529
Food preparations,	5	499	3.80	2,460
Leather and skins,	28	1,519	12.19	12,013
Lumber for building,	10	959	(a)	12,373
Metals,	7	661	6.93	3,944
Mining and quarrying,	23	8,730	42.12	115,197
Printing, publishing, and bookbinding, and paper goods, .	13	188	1.94	3,937
Stone work : cutting and polishing, and fire-clay,	20	2,975	28.60	109,882
Textiles,	197	16,760	23.20	127,625
Toys (wooden),	27	961	6.71	10,118
Transportation and equipment, including loading and unloading,	13	664	2.80	1,681
Work on fine metals,	1	19	0.26	380
Work on ordinary metals,	62	5,048	16.64	149,597
Sundries,	3	156	2.80	2,656
TOTALS,	476	49,851	12.42	644,168

(a) Included in "Building."

The 476 strikes were inaugurated by 49,851 strikers. This number was 12.42 in the thousand of all the workmen engaged in the industries specified. The lost time amounted to 644,168 days, being an average of nearly 13 days for each striker. In the building trades 10.65 workmen in the thousand were engaged in strikes in France in the year 1896. In the manufacture of chemicals 15.53 in the thousand ; in the dressing of skins and manufacture of leather 12.19 in the thousand ; in mining and quarrying 42.12, in stonework 28.60, and in work on ordinary metals 16.64 in the thousand. The textile industries show the greatest number of strikes, the most strikers, and, with one exception (work on ordinary metals) the most lost time. The French report, in speaking of the textile industry strikes, says, "The increase in the number of strikes in 1896 is due almost wholly to the textile industries, and to the Department of the North. (See table on page 35, *ante*.) The two cities of Roubaix and

Tourcoing have had 100 out of the 165 strikes in the Department of the North. Tourcoing which had not had, for five years, more than an annual average of 10 strikes had 57 in 1896, of which 52 were in the textile industry. In the short period of 25 days, from April 22 to May 16, there were no less than 37 different strikes at Tourcoing, while, in the same time, there were only two at Roubaix. Another circumstance, peculiar to strikes in Tourcoing, was that, of 57 strikes, there were only five in which the strikers were members of trades-unions, while the proportion of members of labor organizations to the whole number of strikers is usually 50 per cent."

From 70 of the 88 geographical departments in France, appeals were made under the law relating to arbitration and conciliation, while from 18 no applications were received.

COMPARATIVE WAGES AND EARNINGS.

The Nineteenth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey covers the year ending October 31, 1896. The Chief in his introduction to Part II, Statistics of Manufactures in New Jersey, says:

For some years the question of having the Bureaus of Labor Statistics of the various States pursue a similar line of investigation at the same time has interested the officials at their national conventions: but owing to difference of conditions in the States, and the variation of laws under which the Bureaus are organized, it never has been formally acted upon.* While nearly all of the Bureaus have at one time or another pursued similar lines of investigation, there has been no uniformity at a given time. The result, in our judgment, has been to impair the usefulness of the work done, especially for the generalization of facts; for although the same subject may have been treated by the various Bureaus in all sections of the country, owing to the differences in dates and to varying industrial conditions from year to year, their value for comparison is of less use.

The Chief of the New Jersey Bureau further remarks that with a view to secure some comparative statistics he has followed the same line of investigation as has been pursued by the Massachusetts Bureau, the results of which have appeared in the volumes entitled "Annual Statistics of Manufactures." Although New Jersey ranks sixth in importance among the States of the Union in the value of manufactured goods, that State has never had an industrial census taken by its own officers but has been obliged to rely upon the results shown by the United States Census. With a view of securing information direct from the manufacturers, the Chief of the New Jersey Bureau prepared and sent out a schedule similar to the one used by the Massachusetts Bureau in its annual enumeration.

* All of the Bureaus are now (1897) engaged in collecting statistics relating to gas, water, and electric light and power companies.

We take from the report referred to the information relating to average yearly earnings and classified weekly wages and bring them into direct comparison with similar statistics supplied by Massachusetts manufacturers, both sets of figures relating to the year 1895.

The first table relates to comparative average yearly earnings.

Comparative Average Yearly Earnings.

INDUSTRIES.	AVERAGE YEARLY EARNINGS	
	New Jersey	Massachusetts
Artisans' tools,	\$535.25	\$548.09
Boots and shoes,	433.99	487.86
Boxes (paper and wooden),	310.53	391.67
Brick, tiles, and sewer pipe,	387.87	460.79
Buttons and dress trimmings,	329.70	359.30
Carpetings,	278.64	370.14
Clocks, watches, and jewelry,	412.46	517.02
Clothing,	305.03	400.23
Cooking, lighting, and heating apparatus,	434.66	644.28
Cotton goods,	383.87	329.78
Cotton, woollen, and other textiles,	308.60	375.64
Earthen, plaster, and stone ware,	405.24	491.19
Electrical apparatus and appliances,	420.38	525.79
Glass,	701.07	542.38
Hosiery and knit goods,	263.97	333.32
Leather,	430.28	478.92
Machines and machinery,	465.20	534.48
Metals and metallic goods,	505.22	515.16
Oils and illuminating fluids,	531.85	525.27
Printing, publishing, and bookbinding,	415.25	555.75
Rubber and elastic goods,	353.66	431.55
Silk and silk goods,	372.27	344.09
Straw and palm leaf goods,	234.12	422.11
Tallow, candles, soap, and grease,	481.20	485.94
Tobacco, snuff, and cigars,	251.03	634.43
Wooden goods,	279.89	534.25
Worsted goods,	251.80	356.96

Twenty-seven industries are compared, in 23 of which the average yearly earnings, as reported in Massachusetts, are in excess of those reported in New Jersey. In four, Cotton Goods, Glass, Oils and Illuminating Fluids, and Silk and Silk Goods, the earnings reported in New Jersey are higher than those reported in Massachusetts. The following table brings out the comparisons strongly:

CLASSIFICATION OF AVERAGE YEARLY EARNINGS.	NUMBER OF INDUSTRIES	
	New Jersey	Massachusetts
Under \$300,	6	-
\$300 but under \$400,	8	8
\$400 but under \$500,	9	8
\$500 but under \$600,	3	9
\$600 but under \$700,	-	2
\$700 but under \$800,	1	-
TOTALS,	27	27

In the "under \$300" class there were six industries represented in New Jersey and none in Massachusetts. The next two classes are about equally represented in both States. In the "\$500 but under \$600" class New Jersey has three industries and Massachusetts nine. The highest average yearly earnings were paid in the glass industry in New Jersey, the amount being \$701.07.

The next table relates to comparative weekly wages in the 27 industries considered, taken as a whole, and shown by percentages.

Comparative Weekly Wages: By Percentages.

CLASSIFICATION OF WEEKLY WAGES.	NEW JERSEY			MASSACHUSETTS		
	Males	Females	Totals	Males	Females	Totals
ALL INDUSTRIES.	100.00	100.00	100.00	100.00	100.00	100.00
Under \$5,	11.51	35.38	19.97	8.70	25.99	14.60
\$5 but under \$6,	7.14	17.87	10.94	5.85	19.25	10.46
\$6 but under \$7,	9.42	15.11	11.44	8.85	18.94	12.23
\$7 but under \$8,	9.73	10.57	10.03	9.75	13.55	11.05
\$8 but under \$9,	9.15	7.03	8.40	9.38	9.28	9.33
\$9 but under \$10,	11.86	5.64	9.65	12.40	5.86	10.17
\$10 but under \$12,	11.72	5.02	9.35	14.16	4.17	10.75
\$12 but under \$15,	15.13	2.51	10.66	15.68	2.14	11.06
\$15 but under \$20,	9.57	0.83	6.47	11.30	0.64	7.66
\$20 and over,	4.77	0.04	3.09	3.93	0.08	2.61

Comparing the 10 classifications of weekly wages we find that Massachusetts has the highest percentage of employes in seven of the classes and New Jersey in three. The following graphic table brings these facts out forcibly:

CLASSIFICATION OF WEEKLY WAGES.	The plus sign (+) indicates Excess and the minus sign (—) Deficiency	
	NEW JERSEY	MASSACHUSETTS
Under \$5,	+	—
\$5 but under \$6,	+	—
\$6 but under \$7,	—	+
\$7 but under \$8,	—	+
\$8 but under \$9,	—	+
\$9 but under \$10,	—	+
\$10 but under \$12,	—	+
\$12 but under \$15,	—	+
\$15 but under \$20,	—	+
\$20 and over,	+	—

It will be seen that the New Jersey representation is higher in the two lower grades and in the highest grade, while in the seven intermediate grades the Massachusetts percentages are the larger.

SEVENTH ANNUAL REPORT. 1876. pp. 379.

Part I.—Wage receivers. (71,339 "individual" returns.)

Part II.—Salary receivers. (9,554 "individual" returns.)

Appendix.—History of the Bureau of Statistics of Labor, and of labor legislation in Massachusetts from 1833 to 1876.

EIGHTH ANNUAL REPORT. 1877. pp. 308.

Part I.—Industrial arbitration and conciliation in England and Massachusetts.

Part II.—Co-operation in Massachusetts.

Part III.—Motive power in Massachusetts; or, the labor of the sun.

Part IV.—The afflicted classes. Blind, deaf, dumb, idiotic, and insane.

Part V.—Pauperism and crime.

Part VI.—Massachusetts manufactories: persons employed in each story, and their means of escape in case of fire.

NINTH ANNUAL REPORT. 1878. pp. 267.

Part I.—Comparative condition of manufactures and labor, 1875 and 1877.

Part II.—The education and labor of the young; the half-time system.

Part III.—The growth of Massachusetts manufactures.

Part IV.—The relative importance of private establishments and corporations in manufacturing industries.

Part V.—Conjugal condition, nativities, and ages of married women and mothers.

Part VI.—Nativities, ages, and illiteracy of farmers, farm-laborers, skilled workmen in manufactures and mechanical industries, and unskilled laborers.

TENTH ANNUAL REPORT. 1879. pp. 198.

Introduction.—Expenses of the Bureau.

The insolvency of workingmen.

Weekly payments.

Labor legislation.

Foreign statistics and opinions.

School savings banks.

Bureaus of statistics.

Part I.—The unemployed in Massachusetts. June and November, 1878.

Part II.—Convict labor.

Part III.—Wages and prices, 1860, 1872, and 1878.

Part IV.—Testimony of workingmen.

Part V.—The hours of labor.

Part VI.—Statistics of drunkenness and liquor selling under prohibitory and license legislation, 1874 and 1877.

ELEVENTH ANNUAL REPORT. 1880. pp. 305.

Part I.—Strikes in Massachusetts.

Part II.—Convict labor in the United States.

Part III.—Statistics of crime. 1860 to 1879.

Part IV.—Divorces in Massachusetts. 1860 to 1878.

Part V.—Social life of workingmen.

TWELFTH ANNUAL REPORT. 1881. pp. 545.

Part I.—Industrial arbitration and conciliation.

Part II.—Statistics of drunkenness and liquor selling. 1870 to 1879.

Part III.—Uniform hours of labor.

Part IV.—Influence of intemperance upon crime.

THIRTEENTH ANNUAL REPORT. 1882. pp. 473.

Part I.—The Canadian French in New England.

Part II.—Citizenship.

Part III.—Fall River, Lowell, and Lawrence.

Part IV.—Wages, prices, and profits. 1860, 1872, 1878, and 1881.

FOURTEENTH ANNUAL REPORT. 1883. pp. 412.

Part I.—Employers' liability for personal injuries to their employees.

Part II.—Time and wages.

Part III.—Profits and earnings: 2,440 establishments.

Part IV.—Early factory labor in New England.

FIFTEENTH ANNUAL REPORT. 1884. pp. 484.

Part I.—The working girls of Boston.

Part II.—Comparative wages: 1883. Massachusetts and Great Britain.

Part III.—Comparative wages: 1860-1883. Massachusetts and Great Britain.

Part IV.—Comparative prices and cost of living: 1860-1883. Massachusetts and Great Britain.

SIXTEENTH ANNUAL REPORT. 1885. pp. 551.

Part I.—Pullman.

Part II.—Sunday labor.

Part III.—Comparative wages and prices: 1860-1883. Massachusetts and Great Britain.

Part IV.—Historical review of wages and prices: 1752-1860.

Part V.—Health statistics of female college graduates.

SEVENTEENTH ANNUAL REPORT. 1886. pp. 411.

Memorial.—Henry Kemble Oliver.

Part I.—Co-operative distribution in Great Britain.

Part II.—Profit sharing.

Part III.—Food consumption. Quantities, costs, and nutrients of food-materials.

Part IV.—Art in industry.

EIGHTEENTH ANNUAL REPORT. 1887. pp. 305.

The unemployed.

NINETEENTH ANNUAL REPORT. 1888. pp. 239.

Part I.—Strikes and lockouts.

Part II.—Citizens and aliens.

TWENTIETH ANNUAL REPORT. 1889. pp. 684.

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Part I.—Labor laws of Massachusetts.

Part II.—Population of Massachusetts. 1890. From the Eleventh United States Census.

Part III.—Abandoned farms in Massachusetts.

Part IV.—Net profits in manufacturing industries.

TWENTY-SECOND ANNUAL REPORT. 1891. pp. 606. *Postage 18 cents.*

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TWENTY-THIRD ANNUAL REPORT. 1892. pp. 479. *Postage 15 cents.*

A Tenement House Census of Boston.

Part I. Section II.—Sanitary condition of tenements.

Part II. Section III.—Place of birth, occupations, etc., of residents in tenement houses.

TWENTY-FOURTH ANNUAL REPORT. 1893. pp. 326.

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{ 1886—First Annual Report
1887—Second Annual Report } Published in one volume.

1888—Third Annual Report.

1889—Fourth Annual Report, *Postage 12 cents.*

1890—Fifth Annual Report, *Postage 13 cents.*

1891—Sixth Annual Report, *Postage 11 cents.*

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LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 4.

OCTOBER.

1897.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDGIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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ANNUAL PUBLICATIONS (1870-1896)

OF THE

BUREAU OF STATISTICS OF LABOR.

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ANNUAL REPORTS OF THE BUREAU.

FIRST ANNUAL REPORT. 1870. pp. 423.

Not divided into Parts. The following subjects were considered: Labor and its attendant legislation; cotton manufacturing; agricultural labor; labor and legislation in Massachusetts; origin of labor movement; origin and development of industrial questions; factory system; testimony, at hearings before the Bureau; children in factories, their employment and schooling; the wage system and its results; homes of low-paid laborers in the city of Boston; homes of the middle class; intemperance; together with an appendix containing replies to blanks, extracts therefrom, testimony and remarks, with statistical tables; summary of laws relating to labor, and catalogue of books upon labor.

SECOND ANNUAL REPORT. 1871. pp. 655.

Not divided into Parts. The following subjects were considered: Combination; combination by guilds; combinations by trades-unions; strikes; strikes in Massachusetts; wages and earnings in agriculture, fisheries, land and water travel and transportation, domestic labor and women's work, industrial occupations, and mechanical trades; cost of living; co-operation; work and home life of factory operatives, their earnings, etc.; children in factories; half-time schools; hours of factory labor; facts bearing on the ten-hour argument; hours of labor in Europe; tenement houses, or homes of low-paid laborers in Boston; poverty; intemperance; hours of labor; statements and experiences of workingmen; friendly societies.

THIRD ANNUAL REPORT. 1872. pp. 508.

Not divided into Parts. The following subjects were considered: Wages and earnings in agriculture, commercial, industrial, and mechanical occupations, and domestic labor and women's work (see Report for 1871); hours of labor; cost of living; workingmen's statistics; savings banks; condition of operatives in factory towns; Chinese labor; truck system; accidents; strikes; homes of the working classes; schools for factory children; education and half-time schools; purchasing power of wages.

FOURTH ANNUAL REPORT. 1873. pp. 522.

Not divided into Parts. The following subjects were considered: Wages and earnings; cost of living; savings and savings banks; ownership of property; co-operation; education; poverty; hours of labor.

FIFTH ANNUAL REPORT. 1874. pp. 292.

Part I.—Education and employment of young persons and children, and digest of American and European laws relative to the subject.

Part II.—Relative to professional men.

Part III.—The sanitary condition of working people in their homes and employments.

Part IV.—Comparative rates of wages and hours of labor in Massachusetts and foreign countries.

Part V.—Condition of textile fabric manufactures in Massachusetts, and digest of laws relative to machinery and sanitary matters.

Part VI.—Prices of provisions, clothing, rent, etc., in Massachusetts and Europe; purchasing power of money.

Part VII.—Savings Banks.

Part VIII.—Statistics relating to Massachusetts from the U. S. Census of 1870.

Increase in wages in cotton, woollen, and worsted mills; 1861 compared with 1873.

Comparative table, showing cost of groceries, provisions, and articles of clothing and dry goods, in 1861 and 1873.

Cost of living table. Massachusetts and foreign countries.

Homes for women.

SIXTH ANNUAL REPORT. 1875. pp. 513.

Part I.—The education of working children.

Part II.—Special effects of certain forms of employment upon female health.

Part III.—Factory legislation.

Part IV.—Condition of workingmen's families.

Part V.—Co-operation.

MASSACHUSETTS LABOR BULLETIN.

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1897.

WAGES UNDER CONTRACTS FOR PUBLIC WORK.

That there is considerable opposition, on the part of organized labor, to the execution of public work under the contract system, by award to the lowest bidder in an open market, without limitation as to the rate of wages to be paid or the kind of workmen to be employed, is well-known.

It is manifest that grave abuses may arise where no limitations are placed upon such contracts, and that unscrupulous contractors may endeavor to increase their margin of profit by the employment of alien or inferior labor, or by the payment of wages lower than the ruling rate; and that such contractors may easily underbid competitors who are not willing to follow their example.

The general tendency of this unlimited exercise of the contract system is, of course, to lower the wage standard; or, to speak more exactly, to degrade conditions generally in all the trades affected thereby. If it be true, and no argument is needed to show that it is true, that industrial conditions cannot be degraded without injuriously affecting all social conditions, this may far outweigh any possible pecuniary advantage secured by unlimited bidding.

This is by no means a theoretical view of the matter. Instances in point could easily be cited, and are within the experience of any one who has had even slight opportunity to observe the operation of the system.

It is not unusual, in the execution of private work, for the proprietor to guard against the employment of inferior labor, either directly by express contract provisions, or indirectly by limiting the bidders from whom tenders are requested to such contractors as are known to be unwilling to employ workmen inferior in skill or for less than a fair wage. In soliciting tenders for the execution of public work, however, it is generally impossible, for obvious reasons, to confine the bidding to a select or limited number, or to limit it in any way, except by such restrictions as relate to the competency or solvency of the bidders. Naturally, therefore, there is a feeling on the part of organized labor,

that, as far as possible, public work should be done without the intervention of the contractor, or, where this is neither possible nor expedient, that some condition should be attached to the contract so that prevailing industrial conditions may not be injuriously affected thereby.

This feeling has been recognized, for example, by the London County Council in the direct employment by them of artisans engaged in certain repairs and upon public buildings; it has been recognized elsewhere by the provision that contractors should employ only Union labor, and recently, in the town of Revere, Mass., by a vote in town meeting requiring the erection of a school house by day labor under the supervision of the municipal inspector of buildings, only members of Trades Unions being employed, and, so far as possible, only citizens of Revere.*

While it is easy to anticipate objections to the direct employment of labor on an extended scale, on the public account, without much closer supervision than usually obtains under our municipal governments, or unless absolutely divorced from political considerations or the control of spoilsmen, it is nevertheless true that this feeling against the unlimited contract system is likely to increase, and to become far more influential than at present.

There is apparently no reason, aside from considerations of expediency, why a city which maintains an extensive street cleaning force, employed directly under official supervision and paid directly from the public treasury, should not also undertake in the same way the construction of streets, or the building of sewers, or any similar work. The extension of municipal activity which has already proceeded so far is not likely to be confined within its present boundaries.

Meantime every experiment in the direction of preventing such evils as are sometimes found under the present system is of interest. Of these, none is more prominent than that made by the English House of Commons in what is known as the "Fair Wages Resolution" of February 13, 1891.

Six years have passed since this Resolution was adopted. Ample time has therefore been given to test its efficiency. A select Committee of the House, appointed to consider its operation, has just made a report which enables us to arrive at just conclusions upon the subject.

It may be well, in order to bring the purpose of the Resolution clearly before the reader, to recapitulate briefly the circumstances which led to

* This vote was the subject of controversy, a prior meeting having given the Building Committee the authority to erect a building by contract. The opinion of counsel having been requested as to whether the town had power to pass such a vote, it was held that such action was valid, and within the discretionary power of the inhabitants. The attorneys say: "The discretion of how this public duty (i.e., the erection of a school house, and incident thereto the employment of laborers thereon) shall be carried out seems to be left with the inhabitants of the town, and if the inhabitants of the town in the exercise of that discretion designate a particular manner or a particular person, or class of persons, in which or by whom this public duty is to be performed, it would seem that they were performing the very function that the legislature intended that they should exercise." — *Opinion of Messrs. Dewing & Cutler, Counsel.*

its adoption, and the results which it was hoped to secure by it. A Parliamentary Committee had conducted an exhaustive investigation into the Sweating System, and in the course of taking evidence upon the abuses incident to sub-letting or sub-contracting, as it occurs under that system, it plainly appeared that there was a general tendency to reduce the rate of wages. It was found there, just as similar investigations have shown here, that the essence of sweating lay in the opportunity afforded unscrupulous employers, by means of the contract system, to take advantage of the necessities of the poor and the existence of a body of unskilled and unorganized labor, to force down wages in certain trades to the point of bare subsistence, and that this directly affected competing employers who, in order to live, were obliged to reduce the cost of production by similarly lowering the wage standard. What could be done about it? The question became the subject of debate in the House of Commons, and Mr. Sydney Buxton, who was then a member, and who was also a member of the present Committee which has just completed its examination of the operation of the "Fair Wages Resolution," thus outlines the proceedings :

The State, it was argued, as an employer of labor, should set a good example to other employers of labor, and should see that the conditions which prevailed in regard to the labor employed on its behalf were satisfactory. The State, as the largest employer of labor, cannot fail to have a considerable influence on the labor market ; and this influence should be favorable, and not adverse to the recognition and maintenance of standard rates of wages.

The then existing system of Government contracts acted, it was contended, adversely to these two principles. The lowest tender, and the lowest tender alone (subject merely to the competency of the contractor), was accepted, no regard being had to the wages paid nor to the conditions of employment prevailing under the contract.

The employer who paid a fair rate of wages was put at a disadvantage in competing for Government contracts ; for his competitor, paying a lesser labor bill, could, with equal profit to himself, tender at a lower rate and secure the contract. Further, the contractor, having cut down his tender to the lowest point in order to obtain the contract, would, after securing it, have every inducement, in order to secure a profit, still further to reduce his wage bill. Thus, an unduly low rate of wages, or even "sweating," might not only prevail, but was actually encouraged under Government contracts.

But if, on the other hand, the State insisted that, under every Government contract, not less than the rate of wages paid by "fair" employers and recognized as just by competent workmen, should prevail, the evils of the old plan would disappear, and all contractors would be placed on equal terms in competing for Government contracts.

Further, the disability under which Trade Unionists to a large extent lay in regard to Government contracts would be removed. For the essence of a Trade Union being that a man shall not undersell his fellow-workmen nor work at other than the recognized fair wage, Trade Unionists were to a large extent debarred from employment under Government contracts.

It was not, however, proposed nor desired that the State should, in any sense of the term, fix the rate of wages ; but merely that it should cease to throw its weight into the scale of lower wages and worse conditions of employment ; and should recognize and uphold the minimum current rate of wages that might prevail in different trades or districts.

After the debate, the House adopted the "Fair Wages Resolution," the accepted draft being substituted for one originally proposed by Mr. Buxton. The Resolution as adopted was as follows:

That in the opinion of this House it is the duty of the Government in all Government contracts to make provision against the evils recently disclosed before the Sweating Committee, to insert such conditions as may prevent the abuse arising from subletting, and to make every effort to secure the payment of such wages as are generally accepted as current in each trade for competent workmen.

When the Committee met during the present summer for the purpose of formulating a report on the effect of this Resolve, as shown by the experience of the past six years, two drafts were put before it; one, presented by the chairman, Sir Matthew White Ridley, embodying the views of a majority including, besides the chairman, Mr. Aird, Sir William Arrol, Mr. Banbury, Mr. MacLean, Mr. Morrison, and Mr. Powell-Williams; this draft being afterward adopted substantially as presented, and one, differing in certain particulars to which we shall hereafter allude, presented by Mr. Sydney Buxton, and supported, on the question of its substitution for the draft submitted by the chairman, by Mr. Austin, Mr. Broadhurst, Mr. Buxton, and Sir Charles Dilke.

The statement which we have given as to the reasons which were influential in the passage of the Resolution by the House formed a preamble to the report submitted by Mr. Buxton, and, although not included in the report finally adopted, is no doubt accurate. The report as adopted, so far as it alluded to the intent of the Resolution at all, simply stated that it was the understanding of the Committee that, as Mr. Buxton also put it, "it was not proposed nor desired that the State should, in any sense of the term, fix the rate of wages, but should recognize and uphold the minimum current rate of wages that might prevail in different trades or districts."

The Committee held 19 sittings and examined numerous witnesses, including all the Government Departments concerned, officials of Trades Unions, individual representatives of various trades, and contractors. Upon the facts presented they considered that they were able adequately to report to the House.

It did not appear that the Resolution had had any adverse effect between the employers and employed during the six years that it had been in force. On the other hand, "it seems probable that it has done something to promote agreements between masters and men, in reference to the rate of wages and conditions of employment." It did not appear that the contractors, as a whole, objected either to the Resolution itself or to the method of its administration by the Departments, while it seemed that complaints from the workmen of breaches of the Resolution are not now as frequent as formerly.

With respect to the details of administration the Committee pointed out that, as to "the action that has been taken by the different Depart-

ments in giving publicity to the terms of the Resolution, first with a view to inform the contractor of the nature of the obligation he is undertaking, and secondly, to ensure that he binds himself to fulfil that obligation," or, more specifically, "as regards the terms of the tender and the clause in the contract, . . . there is lack of uniformity." For this diversity of practice the Committee could see no sufficient reason and considered that "subject to special circumstances . . . a common form of tender and contract should be used by all the Departments."

As to whether the Departments, as a whole, had endeavored to act within the spirit of the Resolution, complaint in certain cases having been made, the Committee reports as follows :

As regards the administration of the Resolution, your Committee have had the evidence of the Departments concerned, and that of representative workmen. In reference to these latter witnesses, it may be pointed out that complaints of the nature in question can hardly be made by individual workmen, but must necessarily come through their accredited representatives.

The new duties cast upon the Departments in connection with the Resolution have not been easy of accomplishment; *and have been considerably more arduous than the simple process of the acceptance of the lowest tender, with no responsibility for the conditions of employment that might subsequently prevail under the contract.* It is not surprising that difficulties presented themselves at first in carrying out the new duties. Considerable time and trouble have necessarily been expended in ascertaining the genuineness or correctness of the complaints made, which were often, when made, unsupported by any particulars, as well as in balancing conflicting statements, and in arriving at a just conclusion. *But, as already pointed out, the number of complaints has diminished, and your Committee do not therefore consider that the difficulties alluded to were any other in amount or character than are inherent in the introduction of a new system.* Most of the cases brought before your Committee were not of recent date, nor were they of a serious character as respects the number of men affected.

None of the witnesses from Public Departments have, however, expressed other than satisfaction at the principle contained in the Resolution, but have stated their desire to administer it both in spirit and letter. And, broadly speaking, your Committee have come to the conclusion that the Departments, as a whole, have loyally endeavored to interpret and carry out its provisions.

At the same time it must be noted that, as regards the Irish Departments the evidence points to the fact that it is only of late that any effective action has been taken to insert it in contracts, or to carry out the Resolution.

On the other hand, it cannot be denied that, in certain quarters, there exists a great lack of confidence in the ability or in the desire of some of the Departments to enforce the spirit and letter of the Resolution. It was alleged that there is no uniformity of interpretation or of administration: that many complaints are altogether ignored, and no inquiry made into them: that where inquiry takes place it is often very perfunctorily made: that information is frequently only sought from one side, that of the employer; while the complainants are not consulted or kept informed of what is taking place: that the decision is thus too often not in accordance with the true facts of the case: that, on occasion, Departmental promises of remedial action have not been fulfilled. Further, it is alleged that, in every case, there is great delay and much circumlocution in dealing with complaints: that, thus, it frequently happens, that in cases in which the Department concerned ultimately admits the justice of the complaint and instructs the contractor to remedy the grievance, the inquiry has covered such a long period of time that, by then, the contract is almost or altogether completed. The men are not benefited, and the contractor escapes all penalty or charge. Finally, it is stated,

that so great is the want of confidence in the ability or desire of the Department to remedy these grievances, that trades unions and other representatives of the men, despairing of obtaining proper consideration and redress, have allowed grievances to continue, being convinced of the futility of taking action in respect to them.

While, as already stated, the Committee do not consider that this lack of confidence is well-founded, they think it is very important that the feeling should be removed. And they are of opinion that, in some ways, there is room for improvement in administration and that there might be greater promptitude and uniformity in the working of the Resolution.

We have italicized passages in the foregoing that seem to us especially significant. An important question of interpretation has arisen, and respecting it the Committee says :

The words of the latter part of the Resolution bind the Government to "make every effort to secure the payment of such wages as are generally accepted as current in each trade for competent workmen." *Practically each Department interprets this to mean the rate of wages generally accepted as current in each trade for competent workmen in the district where the work is carried out*, and these words, with slight variations, are now inserted in nearly all Government contracts.

And, it appears to your Committee, that this is the natural interpretation of the Resolution. In no single trade is there a general current rate of wages prevailing throughout the country ; while, in nearly every trade, there are more or less defined, recognized, and agreed-on rates of wages prevailing in particular districts. There are many rates of wages "current in the district," there is no one rate "current in the trade." Unless, therefore, the definition hitherto adopted by the Department is upheld, it would not be possible, in any given case, to decide with equity whether the current rate of wage was being paid in accordance with the terms of the contract and the spirit of the Resolution.

As before, we italicize a significant passage.

It is apparent that difficulty may be encountered when the work attracts tenders from contractors whose establishments are in different districts, where the rates are not uniform ; when, for example, the competition turns upon the rates paid in a country district, as against a higher rate paid for similar work in an urban district. This is shown by the effect of the Resolution in the shipbuilding industry, as thus described by the Committee :

A question has thus arisen as to the retention or otherwise in Admiralty contracts of the words "in the district," and the effect of this question upon shipbuilding on the Thames has been strongly represented to your Committee. It was alleged on one side that the omission of the words enables the contractors on the Thames to pay wages of a low rate, accepted as current in districts remote from London. This is not wholly denied by the Thames contractors, who state that unless they remain free to make their own bargains with their operatives, they have no chance of obtaining contracts in competition with the Northern yards. It appears that many artisans at the present time are working in certain shipbuilding and engineering yards in London at rates somewhat below those claimed by some witnesses as being accepted as current in the London district. This fact seems to show that there is no actual established rate. Whether or not the words "in the district" are included in the contract, the rate current in the district would be open to doubt, and the contractor would not under such circumstances be interfered with. But, even if it could be shown that a rate applicable to the district

has been established it might in the opinion of your Committee be nevertheless undesirable to insist, in a case such as this, on an interpretation of the intention of the House of Commons, which would have the effect of injuring, or it might be even of destroying, a great local industry on which many workmen are depending for a livelihood, and which motives of national policy might render it prudent to foster and maintain. One witness of authority went so far as to say that the Fair Wages Resolution had already driven a vast amount of work from the Thames which would otherwise have been done in that locality, and was fast killing the Thames trade. It was represented to your Committee that the effect of allowing a contractor to disregard a rate of wages claimed as current in the district where his yard is situated would be to induce contractors in other parts of the country to do the like, and thus to drive down wages. But it is obvious, on the other hand, that if the Admiralty were to give a higher price for vessels built in one locality because of higher wages claimed to be current there, a strong inducement would be held out to other localities artificially to raise the wage rate, and thus to obtain a like indulgence.

When we consider the complex nature of modern industrial operations, the intense feeling that sometimes enters into disputed questions in the different trades, and the somewhat general terms of the Resolution, it may be easily understood that other problems have arisen in connection with its administration. Indeed it is remarkable that disputes have been so few and that, on the whole, results have been so satisfactory. For example, assuming that the interpretation placed upon the Resolution is to stand, and that under it the State attempts to secure the payment of such wages as are generally accepted as "current in the district" where the work is carried out, "How is the current rate of the district to be ascertained? How is the area of a district to be defined? Under what circumstances is a contractor entitled to ignore the district rate?" Again, assuming that under the spirit of such a resolution the State is to foster the best industrial conditions, for example, in the terms of the Resolution, "to make provision against the evils recently disclosed before the Sweating Committee," then "should any action be taken in regard to an alleged undue employment of women, boys, apprentices, 'improvers,' &c.?" or upon "the question of 'walking time' and other details of employment; the question of whether stone should be dressed at the quarries or in the district in which the work is carried out; the question of sub-contracting, &c.?"

The Committee found that these and other matters had been brought forward, but in regard to them it did not consider it possible to lay down explicit rules. "Each case," it remarks, "must be decided on its merits, by the exercise of common-sense after careful inquiry." That is, the Resolution would seem to indicate a general principle rather than its application through any hard-and-fast line of action; and this is probably as far as any such method of dealing with the diverse questions arising under the contract system could go. The Committee, however, made the following suggestion:

It should be borne in mind that one of the chief objects which the House of Commons had in view in adopting the Resolution was that the State as such should throw it

weight rather on the side of better than of worse conditions of employment. Further, it appears to your Committee, who in this cordially endorse the recommendations of both the majority and minority of the Labor Commission, that any agreements tending to regulate the rate of wages, or the conditions of employment which may be come to between masters and men, should as far as possible be recognized and encouraged.

In regard to questions relating to conditions of employment, other than wages, the Committee was of the opinion that the decision must largely depend on :

Whether the contractor is enforcing conditions of employment not recognized in the trade ; whether he has, as regards the particular contract in question, departed from his usual conditions of employment in order to evade the spirit if not the letter of the Resolution.

And, especially as to sub-contracting :

Sub-letting or sub-contracting may be perfectly legitimate where the particular form of contract in question is customary to the trade ; or where the contractor in question, in the ordinary course of his business, sub-lets or sub-contracts that particular portion of the work.

But sub-contracting or sub-letting does not appear to the Committee to be permissible where it is not customary to the trade ; nor should the contractor who, in the ordinary course of his business, could or would himself carry out certain work, be allowed to sub-let it to others.

Where a sub-contract is allowed the principal contractor should, as regards the carrying out of the Fair Wages Resolution, be held responsible for his agent.

As the Resolution merely expressed the opinion of the House of Commons as to the policy which should be pursued by the Departments in contracting for the public work, no penalty was prescribed as against the contractor in case he failed to act in accordance with the spirit of the Resolution. The Committee found that no specific penalty was attached to the contracts for breach, and that the only penalties that could be enforced were either to put an end to the contract or to strike the contractor off the list of contractors. Upon this point the Committee states :

Such a punishment is far too severe, except under aggravated circumstances ; and, indeed, in the case of some of the more important contractors, it could only be enforced with damage to the public service. Some lesser penalty, by way of fine, should be provided. This is especially important in those cases where, by the time that the examination into an alleged grievance has led to its substantiation, the contract in question has almost, or altogether, terminated. In such cases, though the contractor is proved to have been violating the Resolution, and, in his labor bill, has been benefiting from his laches, he escapes scot free ; the contract is over before the increased scale of wages can be enforced. Your Committee believe that a moderate penalty, which could be and would be enforced, would do much to induce the contractor himself to remedy the grievances of which complaint is chiefly made. The suggestion made by the War Office director of contracts appears to us to be a valuable one ; namely, that where a definite complaint is made and the grievance is subsequently proved and the

contractor instructed to raise the wages, then the rise of wages should date back to the time at which the complaint was originally received, and payment of the balance shown to be due should be made to the workmen wherever possible.

It seemed, from the evidence before the Committee, that the attempt to carry out the policy suggested by the Resolution had interfered with the employment of old soldiers and sailors, who before the passage of the Resolution had found frequent employment under contractors upon public work. These veterans, as with us, constitute, as far as public opinion is concerned at least, a preferred class in public employment, but many of them, as the Committee points out, are not fully competent or are temporarily unskilled. Under the operation of the Resolution, although contractors might be willing to take them on, at rates commensurate with their ability, they were not permitted to do so, it being held that the Resolution obliges the contractor to pay "every man whom he employs the minimum current wages payable to a fully competent workman in each particular trade."

Representatives of a Trades Union were asked "whether some understanding could not be come to under which Government contractors might be permitted, notwithstanding the Fair Wages Resolution, to give employment to these men, but the answer did not open out a prospect of an arrangement being arrived at." The Committee made no definite suggestion as to such an arrangement or as to any modification of the Resolution to secure this end, but expressed the opinion, however, that "having regard to the high importance of affording every facility to men who have served in the army and navy for getting employment, . . . contractors should not be called upon to refuse to engage them at wages commensurate with their capability even though those wages might be less than the ordinary current rate, *provided that the wages of other workmen could not be shown to be adversely affected.*" The final clause of this comment, which we have italicized, no doubt touches the quick of the objection to such employment on the part of the Trades Unions.

Allusion has been made to the complaints brought by employés respecting the non-observance of the spirit of the Resolution. Witnesses before the Committee were asked if it might not be desirable to have such complaints passed upon by arbitrators not directly interested, namely, the Board of Trade, instead of being settled by the Department which placed the contract. The Committee did not regard such a proposal with favor, although the replies were uniformly in the affirmative, believing that such a plan would lead to conflict of authority and division of responsibility.

The Resolution aims to throw the weight of Governmental influence upon the side of fair wages and humane industrial conditions. Having done this, should any discrimination be made in favor of the members of Trades Unions? It is urged that by confining employment to Union labor it is thereby made certain that fair wages shall be paid and the highest industrial standard maintained. But, by the Resolution itself, the Govern-

ment endeavors to provide that these things shall be conditions precedent to its contracts.

Her Majesty's Government met the question of discrimination in 1893 by undertaking that thereafter all contracts should contain a clause stating that no preference should be given, in employment, as between unionists and non-unionists. But the Committee found that this pledge had not been generally observed. It assumed, however, that this pledge was really an amendment to the Fair Wages Resolution, and "that in every contract the words which already appear in all stationery contracts should be inserted, namely, that 'the contractor . . . shall undertake that, in the engagement and employment of workmen and others required for the execution of the work, no preference shall be given as between unionists and non-unionists.'"

The Committee made no other recommendations than those we have noted, except to suggest that to secure publicity, a list of the Government contractors, together with the nature of their contracts, should be periodically presented to Parliament and published.

It is interesting to observe the points of difference between the report as finally adopted, and the draft submitted by Mr. Sydney Buxton, which was preferred by the minority. This draft was in some respects rather more explicit than the other, and may perhaps be held to reflect the trades union view rather more closely.

Minor differences of phraseology need not be referred to. As to the difficulty which had been encountered in requiring the payment of wages "current in the district" in contracts for shipbuilding, we have already given the conclusion of the Committee that "it might be undesirable to insist, in a case such as this, on an interpretation of the intention of the House of Commons, which would have the effect of injuring . . . a great local industry," it having been alleged that this injurious effect was felt in the shipyards upon the Thames. On this point, however, the minority draft contained the following :

We do not think that this affords any reason for a change of policy in regard to the Fair Wages Resolution as applied to Admiralty shipbuilding. It is not the "Fair Wage" clause, it is the actual higher rate of wages prevailing in London that is in question; the Fair Wage clause has not prevented contracts from being placed on the Thames that otherwise would have been placed there. If the change of policy proposed by the Admiralty were effective at all, it must necessarily lead, not, indeed to the placing of contracts on the Thames, but to a general reduction of wages all round, not only in London, but elsewhere also. The contractor on the Thames, if he is to obtain an Admiralty contract, must, it is argued, reduce the rate of wages he is paying. But, thereupon, his competitors elsewhere will be induced, in order to maintain their superiority in competition, proportionately to reduce the rate of wages they are paying. And, thus, we get back to the position that prevailed before 1891, and the Government would again become instrumental in forcing down the rate of wages. We would rather suggest that, as it is a question of national importance that the contract-built ships should be distributed over the different yards in different districts, and not be concentrated in one or two places, the Admiralty should modify their absolute rule in regard

to the acceptance of the lowest tender; and, if necessary, broadly take into account, in considering the amount of the tender, with a view to the distribution of ships, the difference in the contractor's labor bill, caused by varying district rates of wages that may prevail.

The minority draft attempted to define explicitly the term "current rate of wages" so as to identify it with the Union rate. The paragraph relating to this was as follows, the italics being ours :

It will be observed that the "current rate" of wages is often loosely spoken of as the "trade union rate." It will be well, as there appears to be some confusion of thought in the matter, to clear up the point. Our definition of the "current rate," specified in the Resolution of the House, is the rate of wages recognized and paid by the good employers in a given district, recognized and accepted as, for the time being, fair wages by the representatives of the workmen. In other words, a rate of wages that the men are willing to work at and the masters willing to pay. The following suggested definition of the trade union rate was put to most of the principal representative workmen witnesses, and was assented to by them, namely, "that the trade union rate is not necessarily the rate which a particular trade union would like their men to receive, but the rate at which they will allow their men to work." *It appears to us, therefore, that the term "current rate" and "trade union rate" (as above defined) are substantially the same thing.*

While the report as finally adopted endorsed the proposition that the State should throw its weight on the side of better rather than worse conditions of employment, and should recognize and encourage agreements between masters and men as to wages, the minority draft went somewhat farther and contained the following general propositions, for guidance in carrying out the spirit of the Resolution :

That where, in any given district, rates of wages have been mutually agreed upon by a considerable number of the employers and the representatives of the workmen, these rates should be recognized and enforced.

That where (as we have it in evidence), within a given district in which a certain rate of wages prevails, there is included a small area in which a local contractor alleges that a lower rate prevails; the decision, in case of dispute, should largely depend on the question of whether other employers within the area pay the higher rate, and whether, if an outside contractor took a contract to be fulfilled within the area in question, he would pay the higher or the lower rate. If these questions are decided in the affirmative, the local contractor should be expected also to pay the higher general rate.

That where a contractor, in order to carry out his contract, imports into a district men from another district in which a lower rate of wages prevails, he should (unless there are peculiar circumstances governing the case) be required to pay the higher rate of wages prevailing in the district in which the work is carried out. And, similarly, if the contractor undertakes a contract, and subsequently places a portion of the work in a district in which a higher rate of wages prevails, he should be expected, as regards that portion of the contract, to recognize and to pay the higher rate. Otherwise, in either case, the action taken by the contractor would tend to lower the district rate.

Upon the important point of referring disputes as to wages to the Board of Trade, the minority draft also differed from that finally accepted. Instead of reporting adversely to this proposition a favorable recommendation was advocated as follows :

The chief practical recommendation that we desire to make is, that the services and knowledge of the Labor Department of the Board of Trade should be utilized in cases of dispute under the "Fair Wages" Resolution. The Labor Department is already occasionally consulted by other Departments in the case of these and other labor questions; and the suggestion that their service should be more definitely utilized is apparently agreeable to nearly all the Departments, and to the representatives of the employed. It is not proposed that the Labor Department should, in any way, interfere between the Department concerned and its contractor, nor weaken the direct relations between the two. The questions referred to the Labor Department would be of a strictly limited character, namely, to decide what was in practice the current rate of wages of the district; and, where necessary, to ascertain whether a particular contractor was or was not actually paying this rate. One of the principal duties of the Labor Department is to acquire adequate knowledge in respect to the rate of wages prevailing in different parts of the country, to keep itself informed of any variations that may take place, and to obtain information concerning all labor questions. It is, therefore, in a much better position than any other Department to deal expeditiously, impartially, justly, and adequately with the complicated and difficult questions which arise under the Resolution of the House.

Thus, while, on the one hand, the other Departments would be relieved of a thankless and distasteful task, and one which they are not especially fitted to perform; on the other hand, greater confidence would, we believe, be felt by those who consider themselves aggrieved, that their complaints would receive prompt and careful consideration. In any case, such a system would lead to far greater uniformity of administration and decision, at present, unfortunately, lacking. Nor do we think that the task thus thrown on the Labor Department would be very great. At first, it is possible that the number of complaints lodged would be increased, but this is preferable to the continuance of the idea that the grievances remain unredressed. And the increased knowledge thus acquired would enable the Department to deal promptly with subsequent cases; while the greater uniformity of decision would enable, and probably lead to, the satisfactory settlement of many disputes directly between masters and men without the intervention of the Department at all.

Finally the minority draft closed with a summary of definite and explicit recommendations in the following terms:

I. That there should be an uniform Fair Wages Clause in all Government contracts.

II. That every such clause should specify that the wages paid in the execution of the contract shall be those generally accepted as current in each trade for competent workmen in the district in which the work is carried out.

III. That every such clause should state that, in the engagement and employment of workmen and others required for the execution of the work, no preference shall be given as between "unionists" and "non-unionists."

IV. That, when tenders are invited, a notice should be issued in every case drawing the attention of those who desire to tender to the Fair Wages Clause in Government contracts; and stating that the Department concerned will expect the contracting firms to conform to the spirit and intention of this clause; and that any firm wilfully disregarding its provisions will render itself liable to be disqualified for further Government employment.

V. That the interpretation and administration of the Fair Wages Clause should be governed by the principles stated at length in the body of this Report.

VI. That all sub-contracting, without the leave of the Department concerned, should be prohibited. That sub-contracting should only be permitted where such sub-contracting is customary in the trade; and for work which the contractor in question does not himself perform in the ordinary course of his trade.

VII. That where a sub-contract is allowed the principal contractor should, as regards the Fair Wages Clause, be held responsible for his agent.

VIII. That a money penalty for breach should be attached to the Fair Wages Clause.

IX. That, where a complaint of the non-payment of the current rate is substantiated, any order made for the payment of the full rate by the contractor should be retrospective to the date on which the complaint was originally made to the Department.

X. That (where practicable) the text of the Fair Wages Clause should be conspicuously affixed to the work in progress under the contract.

XI. That all cases of dispute in reference to the "current rate," and conditions of employment and whether a particular contractor was or was not carrying out the terms of the Fair Wages Clause in spirit and in letter, should be referred to the Labor Department of the Board of Trade for inquiry, and for report to the Department concerned.

XII. That a list of Government contractors, together with the nature and amount of their contracts, should be from time to time laid before Parliament and published.

Comparison of these recommendations with the outline of the report actually adopted, which we have given, will bring out the points of difference. The eleventh clause was disapproved in its entirety. As to the others, most of what they contain was practically endorsed by the Committee, although not quite so explicitly.

From this summary of the inquiry into the operation of the Fair Wages Resolution the reader may draw his own conclusions as to the adequacy of such an attempt to prevent the evils which are found in connection with the contract system. These evils are very obvious to the workmen who encounter them, and it is not strange that they wish to have them overcome. It can hardly be claimed that this particular remedy has been entirely satisfactory, or that, however well-meant, a mere expression of opinion such as this could accomplish very much. The difficulties and complexities sure to be encountered in applying any remedy are perfectly plain, and, although not given undue prominence in the report of the Committee, it is clear that they have not been wholly overcome, even after six years' trial of the policy suggested by the Resolution. Still, something has been done, and the significant point is that the House, in its passage, admitted the need of limiting in some way the effect of competition so as to prevent the decline of wages and the deterioration of industrial conditions. And, while the effect of such a resolution is no doubt chiefly moral, its passage was an important step in the direction of recognizing some of the main contentions of the Trades Unions.

We have spoken of the direct employment of artisans by the London County Council. Prior to its action in thus superseding the contract system, the Council undertook to secure the payment of fair wages, and in March, 1889, passed a resolution requiring all contractors for the public works under its control to make a declaration that they paid such wages and observed such working hours as were considered fair in their respective trades.

This method of meeting the evil, however, was found too indefinite to accomplish what was desired. In May, 1892, therefore, the Council went farther. It was provided that all contractors must sign a declaration that they paid the trades union rates and observed such conditions as to hours and other particulars as were recognized by the Unions; and that agreements as to such hours and wages should be inserted in all contracts and conformity therewith enforced under penalty.

The resolution embodying this action of the Council was referred to a committee to consider and report upon the practical details necessary to carry out its provisions.

Certain other proposals were referred to the Committee, some of which were sufficiently radical. For example, it was suggested "that the Council should have power to deduct from amounts payable to the contractor double the amount of any deficiencies from the schedule wages, and pay the contractor's workmen out of sums so deducted, any deficiency in their proper wages." It was also proposed that the time and wages books of the contractors should be open to inspection. Opportunity soon arose for practically testing the efficiency of the resolution. This was in connection with tenders for the erection of an infirmary and for electric lighting. These tenders were subjected to the condition of insertion in the contract of a clause in conformity with the resolution of the Council which we have cited. In the advertisement for tenders, contractors were bound "to pay the rates of wages and observe the hours of labor recognized as fair at the date of delivery of the tenders by the several Trades Unions in which the work was done, and such rates of wages and hours of labor were to be inserted in and form part of all contracts by way of schedule." It now became necessary to settle upon a form of contract, and, as a first step, the opinion of counsel was taken as to whether the Council had power to enforce either by penalty or determination such contract stipulations as to wages and hours. The opinion was favorable, subject to the substitution of liquidated damages for penalties; and it was also held that the Council might provide by a contract stipulation for the direct payment out of the contract amount of any deficiencies in the wages of workmen on account of nonconformity to the schedule rate by the contractor. Considerable difficulty, however, was encountered in definitely fixing upon the form of contract, the opinion of the Committee being reflected in the following statement:

After several meetings and a careful examination of the question in all its bearings we arrived at the conclusion that the best way for the council to proceed would be to adopt standing orders setting out the form in which instructions for tender and contracts were to be as far as practicable drawn so far as they related to rates of wages and hours of labor. We thought that the Council should be bound, in carrying out work without the intervention of a contractor, by the same regulations as its contractors. In drafting the suggested standing orders we accordingly provided, that there should be kept in the county hall a list of rates of wages and hours of labor, based on trade union rates and

hours, to be paid and observed by the Council in carrying out works in the nature of construction and manufacture and by contractors carrying out work for the Council within 20 miles of Charing Cross. The standing orders provided in the case of the employment of labor beyond this area, for the payment of the rates of wages and observance of the hours of labor recognized at the date of the tender by the Trades Unions of the district where the work was to be done. The standing orders also secured that overtime should only be allowed in accordance with the rules of the Trades Union concerned and guarded against the contractor escaping from his liabilities by sub-contracting, which was prohibited without the consent of the Council, such consent only to be given on the contractor entering into an agreement to secure the observance by the sub-contractor of the conditions of the original contract. We were under the necessity of excepting contracts for clothing from the operation of the standing orders, owing to the want of unanimity in the Trades Unions concerned, and we could only suggest that the evils attendant on the present system of making clothing might be obviated by the Council undertaking its own clothing work and in the meantime mitigated by the prohibition of home work.

The recommendations of the Committee were in the main adopted, and the standing orders of the Council passed on the sixteenth of December, 1892.

During the same year the Council established its plan of direct employment. As this is a much more comprehensive way of dealing with the matter, it may be well to summarize the experience since that time.

It should first be understood that the work of the London County Council, covering a wide range of municipal activity, is carried on by 24 standing and four special committees, which report their action either every week or at frequent intervals to the full Council. There are, for example, Committees on Finance, Bridges, Highways, Housing, Improvements, Water, Drainage, and every other important subject within the jurisdiction of the Council. Of these, one of the most important is the Committee on Works. This originally consisted of 30 members. The Committee was established in December, 1892, the Council having decided in the preceding October, to carry out certain building work without the intervention of a contractor. Twelve of the standing committees nominated two representatives each to the Works Committee and the Council elected six additional members.

The Committee thus organized appointed a Manager of Works, and minor officers, obtained suitable premises for workshops, etc., and also procured such machinery as was absolutely necessary for the work in hand.

The first work undertaken was the erection of a fire station, at an estimated cost of \$80,000,* and the Committee also took charge of the jobbing and repair work controlled by the Council, so that up to the end of the following March it was carrying out work estimated to cost nearly \$200,000. This included, besides the fire station already mentioned,

* £16,000.

the erection of two cottages in connection with the Mayfield Industrial School; a lodge at Plumstead Common, and other constructional work.

The Committee, as one of its first duties, prepared a schedule of wages, which was submitted to the Council and regularly adopted, and this schedule, annually revised, must be adhered to by contractors to the Council, as well as by the Committee. Thus the question of what wages shall be paid by contractors, or, in other words, what wages shall be deemed fair, is definitely settled, and tenders are submitted with full knowledge of what will be required.

During the last completed fiscal year, ending March 31, 1897, the average number of workmen employed per week was 1,825, the average weekly pay roll being about \$14,000. From the establishment of the Committee up to the thirty-first of March in the present year the actual cost of all the work carried out was £437,334, or about \$2,186,670. As the time covered since operations were begun is four years and three months, it will be seen that the work has rapidly developed.

It has not been conducted without criticism. As to the jobbing work, the question of economy of management has been raised. To meet this, the Committee decided to price up all such work in accordance with an agreed schedule. The prices set upon building work were those accepted for such work by the School Board for London, upon its jobbing work, after public competition. In the case of engineering work the schedule prices were based upon those accepted by the Council from its last contractors upon similar work, immediately before the Works Committee began its operations. For the year ending March 31, 1896, the figures covered 3,023 different accounts for various repairs, etc., of which the schedule value, determined as above explained, was slightly more than £26,927, while the actual cost as carried out by the Committee was about £24,787. The Committee therefore saved about eight per cent on the measured schedule value of its jobbing work. During the year ending March 31, 1897, the accounts, on this sort of work, included 2,620 cases, the schedule value being about £26,674, and the actual cost about £24,699, a result not greatly different from that of the preceding year.

In an address delivered to the Council in July, 1896, the Chairman, Sir Arthur Arnold, reviewing the proceedings of the year, said :

It is a pleasure to record that no report of bad work has reached us in connection with the Works Committee. I think the suggestion to entrust a considerable portion of the smaller jobbing works to tradesmen in the several neighborhoods is judicious. It is a matter of course that the charges for establishment and plant will fall heavily upon works undertaken by this committee if there be lack of disposition on the part of other committees to make use of its services. In a few months the offices, workshops and stables in Belvedere-road will be fully erected and occupied, and there is reason to expect that, under the watchful care of the committee, this department, which shows an improving rate of profit, will still further justify the policy of the Council. Those who

are most enthusiastic in support of this committee claim, I believe, that the results are the highest quality and character of work, the execution of work at less than or about contract prices, with the highest payment and best conditions of labor.

In the autumn of 1896, however, grave irregularities were discovered in the bookkeeping of the Department, on account of which the Works Committee became the subject of inquiry by a special committee and of considerable discussion in the Council, during which much partisan feeling was manifested. The irregularities consisted of fictitious entries, which were discovered when the books were subjected to the usual auditing by the Comptroller, and which were intended to overcome apparent losses on certain jobs, and thereby avoid criticism, by the transfer of items from other accounts which exhibited a surplus over the estimated cost. Inasmuch as it is officially stated that "these entries had no reference to any misappropriation of monies, nor did they conceal any action whereby any employé of the Department was pecuniarily advantaged" we need not go farther into the matter. It was somewhat disquieting that such irregularities could have occurred, even although there was no actual diversion of money or property, and the episode illustrates the need of constant watchfulness, or, what is better, efficient practical checks, whenever industrial operations of this magnitude are undertaken by direct employment on the public account.

The gist of the report of the Special Committee, made after prolonged investigation, was an endorsement of the principle of direct employment, although certain administrative changes were recommended. The opposition moved the abolition of the Department. After much discussion, the Council was tied on the question of whether the Department should be abolished or sustained, the Chairman declining to break the tie in favor of either side. Finally, on the twenty-ninth of June, it was voted, by way of compromise, that such work as was hereafter undertaken without a contractor should be carried out by the Manager of the Works Department, who is to be responsible to the spending committee in the same way that a contractor would be; and that the Finance Committee should have control of the finances of the Department. The Works Committee was therefore dissolved.

The results of this method of conducting public work, such as is usually performed under contract, are therefore still open to question. The plan of direct employment has not yet justified itself beyond dispute, although, as will be seen from the figures we have cited, it has been carried over a wide field in London with measurable success. The magnitude of the operations of the Works Department will be still more clearly seen from the following statement :

Up to the thirty-first of March, 1897, the expenditure on account of capital was about \$500,000. This included the purchase of premises, the erection of workshops, stables, boiler house, offices, smith's shop, and other similar expenses. The value of the plant and machinery in

hand at that date was approximately \$190,000; besides a considerable stock of timber and other materials. The amount of general and establishment charges, distributed over the whole of the works carried out during the year ending March 31, 1897, within which time work to the amount of about \$1,320,000 was executed, was about \$112,500 including the following items: interest on capital outlay, about \$12,400; repayment of capital, about \$8,275; interest on working capital, about \$9,575; salaries and wages, about \$37,280; rates, taxes, insurance, and other items, about \$44,970. About \$63,200 was charged to the works for depreciation of the plant.

The relations existing between the Department and its employes have been generally amicable. During the year covered by the foregoing statement, the wages of all mechanics employed in the building trades in London, except painters and glaziers, were advanced one-half penny per hour. While effort was being made to obtain this advance, a strike was declared extending more or less throughout London. Except in the case of plasterers, however, the work of the Department was not affected.

The extent and variety of the work controlled by the Department can be seen from the following statement of operations in hand March 31, 1897:

WORK IN PROGRESS.	ESTIMATED COST		
	£	s.	d.
Various sewers,	85,410	00	00
Whitefriars station,	20,650	00	00
Heathwall pumping-station,	10,140	00	00
Blackwall tunnel approaches, paving, sewer work, etc.,	23,118	00	00
Deptford Park, certain buildings,	570	00	00
Boundary Street Area*:			
Erection of artisans' dwellings,	57,883	00	00
Construction of streets, paving, sewers, etc.,	20,953	00	00
Vauxhall temporary bridge:			
Piers and dolphins,	11,440	12	4
Approaches,	3,616	16	11
Kennington Park, refreshment building,	895	00	00
Southwark, erection of dwellings,	18,300	00	00
Crossness outfall, drainage,	41,327	00	00
Battersea river-station,	2,400	00	00
Pimlico river-station,	975	00	00
Battersea Park, repair work on buildings,	170	00	00
North Woolwich drainage system,	48,000	00	00
Various building repairs and other jobbing,	2,999	00	00
TOTAL,	349,147	9	3

* An insanitary district in process of improvement under the Housing of the Working Classes Act of 1890.

To the foregoing schedule may be added £6,292 19s. the estimated value of work in progress and charged directly to the plant and machinery account, bringing the grand total estimated cost of work in progress to £355,440 8s. 3d. or about \$1,777,200.

In view of the fact that the field of direct municipal employment is constantly broadening in Massachusetts and that further substitution of such employment in place of the contract system is constantly urged, the experience in London is of great interest and value.

THE BALTIMORE & OHIO RELIEF DEPARTMENT.

The provision, through some form of insurance, for the contingencies of accident, sickness, or old age, is a conspicuous manifestation of thrift. The sums laid aside for this purpose from earnings or income form in the aggregate large amounts which are really savings, as much so as the sums deposited in savings banks; the principal difference being that the capital thus amassed is held in trust for certain specified purposes, experience having shown that by co-operative effort, that is, by pooling the comparatively small amounts saved by a number of persons, relatively large sums can be returned to individuals in the event of certain contingencies to which all are liable, but which, as to their frequency, can be measured by a system of averages.

How to provide for those who are unable to save or regularly reserve from earnings a sum sufficient to secure protection through the ordinary forms of insurance, or for those who are thriftless or imprudent, is still an unsolved problem, although it is one which the conditions of modern life force upon society.

Germany has undertaken to solve it by an elaborate system of compulsory insurance for workingmen, state-aided and state-directed. Other European States have also moved in the same direction, and the success of such plans is being measured and discussed. Of all adverse contingencies that may affect the workingman none is more serious than that of unemployment, or enforced idleness due to periodic industrial disturbances entirely outside his control; and experiments are now being made abroad, notably in Switzerland, to provide against this contingency also, by a system of co-operative insurance in which the municipality joins with the employés. Whether or not periods of unemployment may be accurately determined so as to bring this contingency within the class of risks that may legitimately be covered by insurance is still an open question; but the old idea that pauperism due to sickness, the infirmities of age, insufficient employment, low wages, or even to lack of thrift, is an unavoidable evil, only to be met by some form of public or private charity, is giving place, in modern thought, to that of providing some plan by which the classes peculiarly liable to this evil may, during the years of industrial efficiency, guard against it; and to the co-operation in such a plan of capital, represented by the employer; of labor, represented by the wage-earner; and, if necessary, of the State, whose interest in the prevention of pauperism is vital.

This change in point of view is no doubt hastened by the belief, gaining in these days constantly increasing force, that pauperism, like many other evils, frequently springs from causes that are social rather

than individual, and that under our present social system, which rests upon the organization of industry, the contingencies that hinge upon employment, such as sickness, accident, diminished industrial force, inability to make provision for one's family in case of death, — as the individual is not entirely responsible for these, no merely individual effort can guard against them. This, of course, is partly a reaction from the extreme position of *laissez faire*, and may easily be pushed too far.

Much in the way of protection has already been accomplished by workmen themselves, through the various benefit associations, the friendly societies, the trades unions, and other organizations wherein the payment of a regular monthly or weekly fee entitles the member to benefits in case of sickness, accident, or death. Distinct from these, and not to be confounded with them, are associations of employes in which employers and employed co-operate to provide a relief fund.

The Railway Relief Departments, well-known abroad, and organized in connection with five large railway systems in the United States, are associations of the kind last named. The American railway companies which have established such departments are the Baltimore & Ohio, the Pennsylvania, the Reading, the Chicago, Burlington & Quincy, and the system known as the Pennsylvania Lines West, including the Western Division of the Pennsylvania R. R., and the Pittsburg, Cincinnati, Chicago & St. Louis R. R.

While the principle underlying these departments is the same, they differ in the details of organization and method. In the Baltimore & Ohio and the Reading, for example, membership, in accordance with foreign precedent, is compulsory; in the others, voluntary. It is not our present purpose to discuss these details fully, or to outline the arguments for and criticisms upon such organizations. We shall confine this article to a presentation of what has been done in the pioneer American Department, that connected with the Baltimore & Ohio system, as this will illustrate their general operation.

The Baltimore & Ohio Department was at first an association of employes, incorporated in May, 1882, although the actual work of relief began somewhat earlier. In its present form, as a department of the Baltimore & Ohio Company, it dates from March 15, 1889, at which time the Corporation perfected the present organization, the assets and liabilities of the employes' association being transferred thereto.

The administration of the Department is practically controlled by the Company. It furnishes office room and furniture, gives the services of its officers and employes, and the use of its facilities. It is the custodian of all funds, and guarantees that the obligations of the Department shall be met, in accordance with the regulations established for its operation, and, through its officers, it has power to change the regulations, which, when changed, become binding upon the members. The executive officers, consisting of Superintendent, Assistant Superintendent, Actuary, and

Chief Clerk, are appointed by the President of the Company, subject to the approval of the Directors, and there is a Committee of the President and Directors "on the Relief Department," which has charge of the operations of the Department, with power to make changes in the regulations, subject to the approval of the President and full board of Directors; hears and finally determines questions of administration brought by members on appeal from the Superintendent, or from the Advisory Committees hereinafter referred to; passes upon loans from the Savings Feature of the Department; determines the disposition of surplus funds at the end of each fiscal year; directs investments; passes upon the rates of contributions to the relief fund and the amounts payable as benefits; etc.

There are also two Advisory Committees, for the eastern and western divisions of the railway system, respectively. The General Manager of each division is, *ex officio*, chairman of the Advisory Committee for the division, but the other members, six in number, are chosen by the members of the Relief Feature of the Department, from among themselves, by ballot, in manner specified in the regulations. The powers of each Advisory Committee are limited to recommendations to the Committee on the Relief Department, formed, as explained, out of the directory of the Company. The employés of the Company are not otherwise represented in the management. The Advisory Committee must hold regular meetings every three months. It receives complaints from members aggrieved by any decision of the Superintendent or otherwise,* and examines and reports upon the same, with recommendations to the Committee on the Relief Department, whose action thereupon, as stated, is conclusive, and it may make any other recommendations that it deems advisable, and is to examine into and report upon all matters referred to it by the Committee on the Relief Department.

There are three branches of Department work in the Baltimore & Ohio system, known, respectively, as the Relief, Savings, and Pension "Features," each being distinct.

The Relief Feature affords benefit relief to its members when they are disabled by accident or sickness, and to their families in the event of death. To this Feature the Company contributes \$6,000 annually, if needed, or if not needed, to the Pension Feature, hereinafter described. Membership in the Relief Feature is, as we have stated, compulsory. That is, all persons entering the service of the Company must join it, contribute to its treasury, and participate in its benefits, except officials who receive more than \$2,000 per annum; employés who entered the service prior to May 1, 1880, and who have been continuously employed since, unless members of the Baltimore & Ohio Employés Relief Association to which the Relief Department succeeded; clerks, telegraphers, and

* Members may, if they prefer, take such complaints directly to the Committee on the Relief Department, without the intervention of the Advisory Committee.

others of similar employment who are not exposed to accidents in the service ; agents receiving commissions only ; and employes receiving \$20 per month or less. Such employes or officials may voluntarily become members, but, if they join, must retain their membership while in the service of the Company. A medical examination is required antecedent to membership, and if not passed, the employe, if of the class whose membership is compulsory, is relieved from service. The Company contributes \$2,500 annually towards the expenses of these examinations. Applicants must not be over 45 years of age.

The beneficiary named in an application for membership must be the wife of the applicant, or his wife and children, if he is married, or his father and mother if he is single ; and the benefit must be paid to the widow or to a relation not more remote than first cousin, except, however, that the natural death benefit may be assigned to secure a loan from the Savings Feature, hereinafter described.

If a member is furloughed or suspended, that is, temporarily relieved from service, whether with or without fault on his part, he may retain his right to receive the natural death benefit only, by continuing his contributions and otherwise complying with the regulations ; and if he returns to duty within six months, he may be restored to full membership without reference to the regulations as to the admission of new members. If not restored within six months, however, his right to full membership is considered to have lapsed, and to regain it he must comply with the conditions prescribed for new members. When a member ceases to be employed by the Company, his membership and participation in the relief benefit cease immediately, except that he may retain his interest in the natural death benefit by complying with certain regulations respecting such cases, and continuing his contributions. Payments on account of injury or sickness are made for the period provided in the regulations, and during the time covered by such payments the provision for a death benefit is also in force. After the expiration of the time during which payments for injury and sickness are continued, the employe may still retain his interest in the natural death benefit fund if he conforms to the regulations and continues his contributions.

Members of the Relief Feature are divided into two classes : the first, including employes operating trains or rolling stock, and the second, all employes not so engaged ; and each of these classes is subdivided according to the average monthly pay of its members into five classes, designated by the letters A, B, C, D, and E, as follows : A, those receiving not more than \$35 per month ; B, those receiving more than \$35 and not more than \$50 ; C, those receiving more than \$50 and not more than \$75 ; D, those receiving more than \$75 and not more than \$100 ; E, those receiving more than \$100.

The payments on account of benefits are made as follows : first, while a member is totally disabled on account of accidental injury received in the discharge of duty in the service, for each day other than Sundays and

legal holidays, during a period of 26 weeks, at rates fixed for the class of which the employé is a member; and at half these rates during the continuance of the disability after the first 26 weeks. Second, relief is paid to members totally disabled by sickness, or from any cause other than accident received in the discharge of duty, for each day other than Sundays and legal holidays, after the first six working days of such disability, for a period not exceeding 52 weeks, at the rates fixed for the class of which the employé is a member. Third, payment is made of a minimum sum of \$500 on the death of a member of the lowest class from accidental injuries received in the discharge of his duty, and of greater amounts for the other classes, as fixed in the regulations. Fourth, payment is made of the minimum sum of \$250 on the death of a member of the lowest class from any cause other than accidental injuries received in the discharge of duty, and of greater amounts for the other classes, as fixed in the regulations. Members under 50 years of age may, after satisfactory medical examination, provide for a larger natural death benefit by entering a class higher than that to which they are assigned on the basis of their monthly pay, and making correspondingly higher contributions to the fund; provided, however, that the maximum natural death benefit shall not in any case exceed \$1,250. Provision is also made for the payment of fees for surgical attendance in certain cases, and for admission of members to hospitals at moderate cost.

The following table shows the monthly payments required from members of the different classes, and the amounts paid as benefits in each of the classes:

MONTHLY WAGE CLASSIFICATION.	MONTHLY MEM- BER PAYMENTS		DISABLEMENT BENEFITS PER DAY NOT INCLUDING SUNDAYS AND LEGAL HOLIDAYS			DEATH BENEFITS		
	First Class*	Second Class	For Accidents While on Duty		For Sickness during First 52 Weeks Minus First 6 Days	Deaths from Acci- dents	Deaths from Sickness	
			First 26 Weeks	Until Recovery			Ordinary	Maximum
\$35 and under, . . .	\$1.00	\$0.75	\$0.50	\$0.25	\$0.50	\$500	\$250	\$1,250
\$50 and under, . . .	2.00	1.50	1.00	0.50	1.00	1,000	500	1,250
\$75 and under, . . .	3.00	2.25	1.50	0.75	1.50	1,500	750	1,250
\$100 and under, . . .	4.00	3.00	2.00	1.00	2.00	2,000	1,000	1,250
Over \$100,	5.00	3.75	2.50	1.25	2.50	2,500	1,250	1,250

* The "first class" consists of those operating the trains or the rolling stock, while the "second class" includes all other employés.

It will be seen that the monthly payments required from members of the first class range from \$1 to \$5, and from members of the second class from \$0.75 to \$3.75; and that the disablement benefits per day, not including Sundays and legal holidays, for accident while on duty, in each class, for the first 26 weeks, range from \$0.50 to \$2.50, half rates being paid after the expiration of 26 weeks until recovery; the benefit payments for sickness during the first 52 weeks, minus the first six days, ranging from \$0.50 to \$2.50. The death benefits, when the death results from

accident in the discharge of duty, range from \$500, fixed for the member under the lowest monthly wage classification, to \$2,500, the maximum amount paid; while the death benefits, when the death occurs from sickness, range from \$250 in the ordinary class to \$1,250, the maximum death benefit paid. For the natural death benefit only, the required contribution is fixed at 25 cents per month for each benefit of the lowest class, i.e. \$250. Members who receive benefits must forego all legal claims for damages on account of injuries.

The monthly payments required from members are appropriated, that is, held back, out of wages earned during the preceding month, and if a member earned no wages during the preceding month, for any reason other than injury or sickness for which he is entitled to receive relief benefits, he must contribute out of the first wages earned whenever he resumes work, for the current instalment and all arrears. No contribution is required from a disabled member, while he is receiving benefits, for any month subsequent to the one in which the disability begins. On his return to work he is entitled to the benefits covered by his application for the month in which he resumes work, without contribution for that month.

The next table shows a classification of benefits paid by the Relief Department, by years, from the year ending September 30, 1889, to September 30, 1896.

Classification of Benefits Paid by the Relief Department of the Baltimore & Ohio Railroad Co.: By Years.

YEAR ENDING —	ACCIDENTAL DEATHS			ACCIDENTAL INJURIES			SURGICAL EXPENSES		
	Number of Cases	Total Cost	Average Cost per Case	Number of Cases	Total Cost	Average Cost per Case	Number of Cases	Total Cost	Average Cost per Case
September 30, 1889, . . .	79	\$87,463	\$1,107	3,442	\$50,695	\$15	2,333	\$14,381	\$6
September 30, 1890, . . .	73	73,575	1,008	4,338	56,141	13	2,455	11,711	5
September 30, 1891, . . .	100	106,646	1,066	5,513	66,439	12	2,404	7,720	3
September 30, 1892, . . .	105	116,650	1,111	6,302	76,512	12	2,613	8,508	3
September 30, 1893, . . .	95	102,000	1,074	5,994	71,258	12	3,310	8,212	2
September 30, 1894, . . .	60	64,415	1,074	4,270	52,342	12	2,787	7,929	3
September 30, 1895, . . .	60	68,812	1,147	4,999	61,928	12	3,254	7,934	2
September 30, 1896, . . .	50	49,468	989	6,008	69,222	12	3,947	7,804	2

Classification of Benefits Paid by the Relief Department of the Baltimore & Ohio Railroad Co.: By Years — Concluded.

YEAR ENDING —	NATURAL SICKNESS			NATURAL DEATHS			AGGREGATES		
	Number of Cases	Total Cost	Average Cost per Case	Number of Cases	Total Cost	Average Cost per Case	Number of Cases	Total Cost	Average Cost per Case
September 30, 1889, . . .	4,929	\$77,408	\$16	139	\$66,156	\$476	10,922	\$296,103	\$27
September 30, 1890, . . .	4,629	68,508	15	147	68,880	469	11,642	278,815	24
September 30, 1891, . . .	6,033	84,062	14	196	94,923	484	14,246	359,790	25
September 30, 1892, . . .	6,413	88,506	14	154	84,405	548	15,557	374,581	24
September 30, 1893, . . .	5,599	75,421	14	183	92,183	504	15,181	352,074	23
September 30, 1894, . . .	5,467	85,162	16	172	103,920	604	12,756	313,768	25
September 30, 1895, . . .	5,772	89,600	16	149	87,400	587	14,234	315,674	22
September 30, 1896, . . .	6,722	103,717	15	172	91,843	534	16,899	322,054	19

An inspection of this table shows that the number of deaths occurring from accident in each year ranged from 50, the number occurring in the year ending September 30, 1896, to 105, the number for the year ending September 30, 1892, the average benefit cost ranging from \$989 to \$1,147. The number of cases of accidental injury ranged from 3,442, in the year ending September 30, 1889, to 6,302, in the year ending September 30, 1892, the average cost per case being \$15 in the year ending September 30, 1889, \$13 in the year ending September 30, 1890, and \$12 in each of the other years. The number of cases in connection with which surgical expenses have been incurred ranged from 2,333, in the year ending September 30, 1889, to 3,947 in the year ending September 30, 1896. The average cost per case reached its highest figure, namely, \$6, in the first year after the organization of the Department, that ending September 30, 1889; while for the year ending September 30, 1896, the average cost has been but \$2. The number of cases of natural sickness ranged from 4,629 in the year ending September 30, 1890, to 6,722 in the year ending September 30, 1896, the average cost per case ranging from \$14 to \$16. The natural deaths occurring among members ranged from 139 in the year ending September 30, 1889, to 196 in the year ending September 30, 1891, the average benefit paid on account of such deaths ranging from \$469 in the year ending September 30, 1890, to \$604 in the year ending September 30, 1894. The aggregate number of cases of all kinds ranged from 10,922 in the year ending September 30, 1889, to 16,899 in the year ending September 30, 1896, the average cost per case ranging from \$19 to \$27, the smaller figure being found in the year last named, namely, that in which the largest number of cases were reported, although this is not the year in which the largest aggregate cost was found.

The Savings Feature of the Department is practically a Savings Bank, provided for the benefit of any employé of the Company, his wife, child, father or mother, or the beneficiary of a deceased member of the Relief Feature. Such persons may deposit any sum not less than \$1 or more than \$100 at any one time, and parents or others may deposit in the name of any child, subject to the order of the parent or other adult, and a minor may deposit in his own name, subject, however, to the order of an adult. One of the principal objects of this Feature is to enable the employés to acquire homes, and to that end loans are made to any adult employé of the Company who is a member of the Relief Feature, and who has been continuously in the service not less than one year, of sums not less than \$100, at an interest rate of six per cent per annum, the loans being secured by a mortgage upon homestead property, it appearing before the loan is granted that the loan is to be used to acquire such property, or to free it from debt.

Loans are limited to three-fourths of the market value of the property offered as security, and in making them preference is given to applicants who have the best service record. It is required also that the homestead must be adjacent to the Baltimore & Ohio Railroad or one of its branches

or divisions, or within one mile thereof, unless located in a city through or into which such railroad runs. Interest is paid upon deposits on all sums of five dollars and upwards that have been on deposit not less than three calendar months, at the rate of four per cent per annum, no interest being paid on fractional parts of a dollar, or for parts of a calendar month.

Also, in addition to the interest guaranteed depositors, the Committee may award dividends from the net earnings of the Savings Feature, after the close of any fiscal year, in proportion to the interest credited to their respective accounts for the year. Such a dividend apportioned at the close of the fiscal year ending June 30, 1896, the last year for which we have data, made the interest for that year equal to five and one-half per cent. Interest on deposits is credited at the end of each fiscal year, and thereafter treated as part of the principal. No interest, however, is allowed on any account after the expiration of 10 years from the date of the last credit entry of the account, exclusive of entries of interest.

Loans are repaid by monthly instalments, retained out of wages, at the rate of not less than \$1.50 per month for every hundred dollars borrowed, beginning on the first day of the month following that in which the loan is consummated, and continuing until principal and interest are paid in full. This makes it certain that the employé will finally own his home free of encumbrance, and in that respect the plan resembles the operation of the building associations or co-operative banks.

The following table shows the financial condition of the Savings Feature, by years, from 1889 to 1896 :

Savings Feature of the Relief Department of the Baltimore & Ohio Railroad Company: By Years.

ASSETS AND LIABILITIES.	1889	1890	1891	1892	1893	1894	1895	1896
ASSETS.								
Outstanding loans, . . .	\$307,913	\$307,675	\$408,784	\$495,179	\$601,239	\$667,349	\$689,426	\$701,005
Interest accrued from B. & O. R. R., . . .	3,444	5,278	6,849	4,506	7,458	4,495	5,462	-
Printing press, . . .	342	562	294	1,372	1,291	1,121	1,027	1,178
Investments, . . .	51,500	51,500	51,050	50,090	50,000	50,000	50,000	50,000
Miscellaneous, . . .	319	187	259	97	-	228	200	701
Cash, . . .	79,371	152,594	119,992	155,069	198,611	85,410	138,745	94,953
TOTALS, . . .	\$442,889	\$517,796	\$587,228	\$706,313	\$858,599	\$808,603	\$884,860	\$847,837
LIABILITIES.								
Due depositors, . . .	\$435,553	\$506,813	\$577,429	\$692,547	\$830,386	\$780,668	\$856,043	\$813,048
Relief feature, . . .	936	1,078	1,154	913	1,898	1,113	978	1,954
Profit and loss, . . .	6,399	6,329	7,565	9,936	16,269	21,681	23,168	24,597
Returned fire insurance premium due borrower,	1	-	-	-	-	-	-	-
Miscellaneous, . . .	-	43	125	150	142	105	247	171
Unpaid checks, . . .	-	3,534	955	2,766	9,905	5,036	4,424	3,067
TOTALS, . . .	\$442,889	\$517,797	\$587,228	\$706,312	\$858,600	\$808,603	\$884,860	\$847,837

Savings Feature of the Relief Department of the Baltimore & Ohio Railroad Company: By Years — Concluded.

DEPOSITS AND LOANS.	1889	1890	1891	1892	1893	1894	1895	1896
Total deposits during the year,	\$149,576	\$191,027	\$210,011	\$219,086	\$326,050	\$227,861	\$267,586	\$244,974
Total deposits,	\$1,046,310	\$1,237,337	\$1,447,347	\$1,666,433	\$1,992,483	\$2,229,344	\$2,487,930	\$2,732,904
Total amount loaned during the year,	\$68,351	\$104,785	\$199,555	\$166,379	\$255,387	\$206,082	\$175,689	\$185,515
Total amount loaned to borrowers,	\$594,656	\$699,441	\$898,996	\$1,065,374	\$1,320,761	\$1,526,842	\$1,702,531	\$1,888,046

It appears from this table that the assets of this Feature have grown from \$442,889 to \$847,837 in the period specified, namely, 1889 to 1896, the amount due to depositors rising from \$435,553 to \$818,048. The outstanding loans made in accordance with the plan previously outlined, and for the purposes named, have risen from \$307,913 to \$701,005. The total deposits during the first year covered by the table, 1889, amounted to \$149,576, and during the year 1896, the last year represented in the table, reached the sum of \$244,974; the total amount deposited up to the close of the year last named being \$2,732,904, and the total amount loaned to borrowers, \$1,888,046. Up to June 30, 1896, the money loaned to employes has been expended in building 916 houses, buying 870 houses, improving 192 houses already owned, and freeing from debt 416 houses.

The Pension Feature of the Department is intended to make provision for those employes who, by reason of age or infirmity, are relieved or retired from the service of the Company. Under the existing regulations the Company contributes to this Feature the sum of \$25,000 annually. As previously noted, the Company also contributes \$6,000 annually to the Relief Feature, with the stipulation that if not needed for that purpose, the contribution shall be carried to the Pension Feature. As it has not been needed for relief, the pension fund has been increased each year by that amount. Besides these contributions, the Pension Feature has now acquired an invested fund from which it receives an annual income of about \$3,550. Part of this fund was acquired by the Pension Feature before it became operative, and invested in five per cent bonds; the balance, about \$70,000, is invested with the Company, which pays upon it about four per cent annually. The Committee in charge of the Relief Department has authority to determine what disposition shall be made of the surplus funds of the Relief Feature at the close of each fiscal year, and especially is empowered to dispose of them by increasing the efficiency of the Pension Feature. Acting under this authority, the Committee has set aside, for the benefit of the Pension Feature, the income from \$375,000 of the funds of the Relief Feature, invested at four per cent. All together, therefore, the fund for the payment of pensions amounts to about \$49,550 annually.

The contributions of the Company are applied in order of precedence, as follows: first, to the support during life of members of the Relief Feature, who, having served the Company for 10 consecutive years, and having reached the age of 65, shall be honorably relieved from duty; second, to provide in the same manner for like persons who elect to retire from service; third, if the funds applicable are more than sufficient for the purposes named, the surplus is to be applied to the relief of such class or classes of the Company's employés, members of the Relief Feature, as the Committee may think most deserving, under such regulations as the Committee may then adopt. Pensions are paid monthly, the daily allowance being equal to one-half the benefits provided to be paid for sickness under the regulations of the Relief Feature to the members of each class respectively, as shown in a preceding table. If the pensioner has been a member of the Relief Feature 15 years, the allowance is increased five per cent, and for each additional term of five consecutive years' service, five per cent additional is allowed.

The amount paid daily to pensioners may be clearly seen from the following table:

CLASSES TO WHICH MEMBERS OF RELIEF FEATURE CONTRIBUTE.	DAILY PENSION ALLOWANCE		
	After 10 Years' Membership*	After 15 Years' Membership	After 20 Years' Membership
A,	\$0.25	\$0.26 1/4	\$0.27 1/2
B,	0.50	0.52 1/2	0.55
C,	0.75	0.78 3/4	0.82 1/2
D,	1.00	1.05	1.10
E,	1.25	1.31 1/4	1.37 1/2

* One-half the amount paid as benefit in case of sickness, in each class respectively, as shown in a preceding table.

The regulations provide that the pensions are not to be diverted by pledge, mortgage, sale, assignment, or transfer of right, and in event of the death of the pensioner, no one save his widow or child is entitled to receive any accrued amounts which may be due. And it is also provided that amounts due to pensioners under this Feature shall be exempt from attachment, levy, or seizure, or any other legal process.

We are able to show the membership, deaths, and disablements in connection with the Relief Department from 1889 to 1896. These figures are presented in the following table.

If the table is used as a basis of deductions as to the risks carried by the Department it should be borne in mind that, except as to deaths, the number of cases shown in the table do not actually show the number on which relief benefits were paid. The table shows the number reported, but many cases do not, under the regulations, entitle the member to benefits. For instance, in cases of sickness it will be remembered that no relief is paid until after the first six days.

Average Monthly Membership, Disablements, and Deaths in the Baltimore & Ohio Relief Department: By Years.

DATES.	Average Monthly Membership	DISABLEMENTS OCCURRING			DEATHS OCCURRING			
		From Accidents	From Sickness	Total	From Accidents	From Natural Causes	Total	Proportion per 1000 Members
October 1, 1888, to September 30, 1889,	19,894	3,442	4,929	8,371	79	139	218	10.96
October 1, 1889, to September 30, 1890,	21,722	4,338	4,629	8,967	73	147	220	10.13
October 1, 1890, to September 30, 1891,	21,857	5,513	6,033	11,546	100	196	296	13.54
October 1, 1891, to June 30, 1892,*	22,922	4,824	5,141	9,965	76	117	193	8.42
July 1, 1892, to June 30, 1893, . .	23,235	6,246	5,773	12,019	106	175	281	12.09
July 1, 1893, to June 30, 1894, . .	21,288	4,508	5,313	9,821	65	178	243	11.41
July 1, 1894, to June 30, 1895, . .	20,947	4,738	5,720	10,458	55	155	210	10.03
July 1, 1895, to June 30, 1896, . .	21,711	5,751	6,279	12,030	58	165	223	10.27

* Nine months only.

The foregoing table is of value for the purpose of comparison, the facts for each year being tabulated upon a uniform basis, but, as stated, the total number of cases should not be assumed to be the total number of persons receiving relief. The table does show, however, the number of cases of each kind which occurred, with average membership as given, and therefore is indicative so far; while the average cost of relief *upon the basis of the number of cases occurring*, shows the maximum pecuniary limit of relief.

At the close of the fiscal year ending June 30, 1896, the membership included 23,189 persons, the average monthly membership being 21,711. Between October 1, 1884, and June 30, 1896, the number of members pensioned was 485. Of these 215 died prior to the date last named, leaving 270 who were upon the list at the close of the period. During the fiscal year ending June 30, 1896, the sum of \$34,726.82 was paid to pensioners, while for the period beginning October 1, 1884, and ending June 30, 1896, the sum of \$307,781.19 was thus disbursed.

It has been urged against the Railway Relief Departments :

1. That they interfere with the growth of labor organizations.
2. That through them the corporations seek to protect themselves against suits for damages to their employes.
3. That railroad companies by such departments enter into competition with insurance companies and other benefit associations, and that this is outside their legitimate field of operation.
4. That when membership in such departments is compulsory the liberty of the employé is curtailed. (This, of course, does not apply to the departments in which membership is voluntary.)
5. That a member may contribute for years to a fund providing death benefits and then lose his interest therein, by leaving the employ of the company. (This, however, does not apply to the Baltimore & Ohio Department which permits members who leave the service of the

company to retain their interest in the natural death benefit fund, by continuing their contributions.)

To all these, and possibly other objections, the advocates of such departments present cogent answers. It is not our purpose to enter into the discussion here, as the whole ground is sufficiently covered in the literature of the subject. It is manifest that some of the objections may be raised with equal force against many other plans which aim to improve the status of the employé, including the state-aided schemes of insurance and certain forms of co-operation or profit sharing. If the opinion be held that the attitude of employer and employé is necessarily one of opposition, and that it is the purpose of labor organizations to perpetuate this attitude, the first objection noted above might have greater validity than it would carry otherwise. The field occupied by labor organizations is much broader than this, and there need not be rivalry between them and the Relief Departments.

It is of course true that the Relief Department is to a degree paternal, and that the employés have little control of the organization, although ostensibly it seeks their welfare. The employé is forced to lay aside something from earnings whether he wishes to do so or not.

But, on the other hand, observe the results. Here is a group of about 20,000 employés, who, during the last 17 years, by the monthly payment of, let us say, three to four per cent of their wages, have provided for relief in case of disability due to the hazards of employment or to sickness, and have made certain that in the event of death from accident while on duty, sums ranging from \$500 to \$2,500 will be paid to those dependent upon them, or in case of death from natural causes, that sums ranging from \$250 to \$1,250 will be thus paid. Besides this, availing themselves of the facilities afforded by the Department to its members, these employés have, up to June 30, 1896, accumulated savings to the amount of \$818,048; and this, being loaned to some of their associates, has enabled them to become home owners upon a plan which will gradually result in the extinguishment of the debt. Finally, the superannuation feature provides that when active service is no longer possible, there will still be received a small sum daily during life. To these results, besides the expenses of management, the employer contributes \$31,000 annually, or nearly nine per cent of the amount paid during the fiscal year ending June 30, 1896, on account of benefits, including pensions.

The plan involves the co-operation of employer and employé, and, so far as the employer contributes to the finances, partakes of profit sharing. That it stimulates thrift, and strengthens the amicable relations between the parties, seem to be incidental features, of by no means least importance.* These are definite and proven benefits, while some of the criticisms are theoretical.

* There are other moral benefits, such as the elevation of the standard of efficiency among the employés, the creation of a feeling of security against absolute dependency or destitution when service becomes no longer possible, etc.

After all, the best test of the success of the Department is afforded by the attitude of the employes toward it. Upon this point, Dr. S. R. Barr, the Superintendent of the Department, says :

The association has grown into almost universal popularity with the employes, dating from the time its practical operation began to be felt among them. This fact is evidenced not only from the personal expressions of members themselves, but from the fact that a very large number of those leaving the service of the company retain their interest in the natural death feature; that although it was optional at the time of inaugurating the association for all persons then in the company's service to become members or not, it is difficult to find to-day any one of these old employes who is not a member, and of those who are not members nine-tenths would become such if they had not become debarred by reason of their age and infirmity.*

ACCIDENTS TO EMPLOYÉS IN MASSACHUSETTS.

The preceding article contains an account of a method of guarding against the accidents contingent upon employment. We present, as of interest in connection with the subject, a statistical statement of such accidents in Massachusetts, by years, from 1889 to 1896. This is the period of time covered by our analysis of the operation of the Baltimore & Ohio Railway Relief Department. Accidents to employes on railways are returned to the Massachusetts Railroad Commissioners, from whose data the following table is compiled :

Summary of Railroad Accidents to Employés During Eight Years: 1889-1896.

YEAR ENDING—	Number of Train-men	Number of Other Em-ployés	Total Number of Em-ployés	CAUSES OF ACCIDENTS					Aggregate Average Number of Persons Em-ployed	Total Number of Em-ployés Killed	Total Number of Em-ployés Injured
				In Coup-ling and Un-coupling Cars	By Over-head Bridges	By Train Acci-dents†	By Fall-ing from Trains and Engines	From Other Causes			
September 30, 1889,	271	44	315	140	12	19	57	87	38,909	61	254
September 30, 1890,	307	83	390	158	20	18	75	119	40,350	68	322
June 30, 1891,	336	72	408	194	19	27	69	99	42,289	67	341
June 30, 1892,	529	95	624	307	31	27	104	155	44,784	84	540
June 30, 1893,	832	92	924	412	44	40	185	243	48,831	110	814
June 30, 1894,	480	120	600	257	17	76	101	149	46,727	53	547
June 30, 1895,	483	117	600	256	22	66	107	149	46,533	67	533
June 30, 1896,	439	139	578	233	28	58	85	174	52,127	74	504

The accidents in the foregoing table are classified under four leading causes. The largest number from any single cause in each year is due to coupling and uncoupling cars. For example, in the last year reported,

* Third Annual Report of the Interstate Commerce Commission.

† Including engine and car accidents.

ending June 30, 1896, out of 578 employes killed or injured, 233 cases were due to this cause; 28 were injured by overhead bridges; 58 by train accidents; 85 by falling from trains and engines; and 174 from all other causes combined. The aggregate average number of persons employed on Massachusetts railroads during the year was 52,127; the number killed or injured being 578 or slightly more than one per cent. The total number killed was 74. The percentage of average number of employes killed or injured, ranges from 0.81 in the year 1889, to 1.39 in the year 1892, the year 1893 being excluded from this comparison. In 1893 the percentage rose to 1.89, an apparently exceptional point.

Accidents in manufacturing and mercantile establishments are, under the provisions of law, reported to the Chief of the Massachusetts District Police. The total number of such accidents, reported from 1889 to 1896 inclusive, is shown in the following table:

*Summary of Employes Injured in Manufacturing and Mercantile Establishments:
By Years.*

CLASSIFICATION OF INJURIES.	NUMBER OF EMPLOYES INJURED DURING SPECIFIED YEARS:							
	1889	1890	1891	1892	1893	1894	1895	1896
Injured by machinery in factories, mills, and electric works,*	272	355	344	310	332	278	376	284
Injured by machinery in other mechanical establishments,	143	238	176	80	104	64	95	85
Injured by elevators,	37	26	45	44	23	27	31	27
Injured by flying shuttles and other parts of machinery breaking in motion,	5	-	-	36	14	6	13	7
Injured by shafting, belting, and pulleys,	29	35	41	34	25	22	39	44
Injured by falling weights, breaking of machinery, etc.,	36	70	40	35	5	-	-	-
Injured by burns and scalds,	26	13	25	33	18	16	39	27
Injured by using or handling mechanical tools,	8	24	19	7	-	-	-	-
Injured by explosions and electric shocks,	-	-	1	-	3	3	3	9
Injured by causes not here enumerated,	152	88	201	294	256	232	346	414
TOTALS,	708	849	892	873	780	648	942	897

* From 30 to 45 per cent of the injuries under this classification was incurred while the employes were cleaning machinery in motion, or attempting to remove waste, bobbins, etc., which had fallen into running machinery.

The number of employes injured ranges from 648 in 1894, the smallest number reported in any single year, to 942 in 1895, the largest number reported; the number reported in 1896 being 897. The largest number of accidents is found in connection with the operation of machinery. The number of cases in which the accident resulted fatally, is as follows, by years: 1889, 19; 1890, 42; 1891, 32; 1892, 34; 1893, 23; 1894, 24; 1895, 36; 1896, 23.

Data are not available from which to compute the percentage of employes who were injured of the total number employed in these establishments.

SEVENTH ANNUAL REPORT. 1876. pp. 379.

Part I.—Wage receivers. (71,339 "individual" returns.)

Part II.—Salary receivers. (9,554 "individual" returns.)

Appendix.—History of the Bureau of Statistics of Labor, and of labor legislation in Massachusetts from 1833 to 1876.

EIGHTH ANNUAL REPORT. 1877. pp. 303.

Part I.—Industrial arbitration and conciliation in England and Massachusetts.

Part II.—Co-operation in Massachusetts.

Part III.—Motive power in Massachusetts; or, the labor of the sun.

Part IV.—The afflicted classes. Blind, deaf, dumb, idiotic, and insane.

Part V.—Pauperism and crime.

Part VI.—Massachusetts manufactories: persons employed in each story, and their means of escape in case of fire.

NINTH ANNUAL REPORT. 1878. pp. 267.

Part I.—Comparative condition of manufactures and labor, 1875 and 1877.

Part II.—The education and labor of the young; the half-time system.

Part III.—The growth of Massachusetts manufactures.

Part IV.—The relative importance of private establishments and corporations in manufacturing industries.

Part V.—Conjugal condition, nativities, and ages of married women and mothers.

Part VI.—Nativities, ages, and illiteracy of farmers, farm-laborers, skilled workmen in manufactures and mechanical industries, and unskilled laborers.

TENTH ANNUAL REPORT. 1879. pp. 198.

Introduction.—Expenses of the Bureau.

The insolvency of workingmen.

Weekly payments.

Labor legislation.

Foreign statistics and opinions.

School savings banks.

Bureaus of statistics.

Part I.—The unemployed in Massachusetts. June and November, 1878.

Part II.—Convict labor.

Part III.—Wages and prices, 1860, 1872, and 1878.

Part IV.—Testimony of workingmen.

Part V.—The hours of labor.

Part VI.—Statistics of drunkenness and liquor selling under prohibitory and license legislation, 1874 and 1877.

ELEVENTH ANNUAL REPORT. 1880. pp. 305.

Part I.—Strikes in Massachusetts.

Part II.—Convict labor in the United States.

Part III.—Statistics of crime. 1860 to 1879.

Part IV.—Divorces in Massachusetts. 1860 to 1878.

Part V.—Social life of workingmen.

TWELFTH ANNUAL REPORT. 1881. pp. 545.

Part I.—Industrial arbitration and conciliation.

Part II.—Statistics of drunkenness and liquor selling. 1870 to 1879.

Part III.—Uniform hours of labor.

Part IV.—Influence of intemperance upon crime.

THIRTEENTH ANNUAL REPORT. 1882. pp. 473.

Part I.—The Canadian French in New England.

Part II.—Citizenship.

Part III.—Fall River, Lowell, and Lawrence.

Part IV.—Wages, prices, and profits. 1860, 1872, 1878, and 1881.

FOURTEENTH ANNUAL REPORT. 1883. pp. 412.

Part I.—Employers' liability for personal injuries to their employees.

Part II.—Time and wages.

Part III.—Profits and earnings; 2,440 establishments.

Part IV.—Early factory labor in New England.

FIFTEENTH ANNUAL REPORT. 1884. pp. 484.

Part I.—The working girls of Boston.

Part II.—Comparative wages: 1883. Massachusetts and Great Britain.

Part III.—Comparative wages: 1860-1883. Massachusetts and Great Britain.

Part IV.—Comparative prices and cost of living: 1860-1883. Massachusetts and Great Britain.

SIXTEENTH ANNUAL REPORT. 1885. pp. 551.

Part I.—Pullman.

Part II.—Sunday labor.

Part III.—Comparative wages and prices: 1860-1883. Massachusetts and Great Britain.

Part IV.—Historical review of wages and prices: 1752-1860.

Part V.—Health statistics of female college graduates.

SEVENTEENTH ANNUAL REPORT. 1886. pp. 411.

Memorial.—Henry Kenble Oliver.

Part I.—Co-operative distribution in Great Britain.

Part II.—Profit sharing.

Part III.—Food consumption. Quantities, costs, and nutrients of food-materials.

Part IV.—Art in industry.

EIGHTEENTH ANNUAL REPORT. 1887. pp. 305.

The unemployed.

NINETEENTH ANNUAL REPORT. 1888. pp. 239.

Part I.—Strikes and lockouts.

Part II.—Citizens and aliens.

TWENTIETH ANNUAL REPORT. 1889. pp. 684.

Part I.—Relation of wages to the cost of production.

Part II.—Markets, transportation, imports, exports, and competition, Postage 6 cents.

Part III.—Condition of employes, Postage 3 cents.

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Part VII.—Women in industry.

Part VIII.—Index to reports: 1870-1889. Twenty years, Postage 3 cents.

TWENTY-FIRST ANNUAL REPORT. 1890. pp. 661.

Part I.—Labor laws of Massachusetts.

Part II.—Population of Massachusetts. 1890. From the Eleventh United States Census.

Part III.—Abandoned farms in Massachusetts.

Part IV.—Net profits in manufacturing industries.

TWENTY-SECOND ANNUAL REPORT. 1891. pp. 606. Postage 18 cents.

A Tenement House Census of Boston.

Section I.—Tenements, rooms, and rents.

TWENTY-THIRD ANNUAL REPORT. 1892. pp. 479. Postage 15 cents.

A Tenement House Census of Boston.

Part I. Section II.—Sanitary condition of tenements.

Part II. Section III.—Place of birth, occupations, etc., of residents in tenement houses.

TWENTY-FOURTH ANNUAL REPORT. 1893. pp. 326.

Part I.—Unemployment.

Part II.—Labor chronology—1893. Postage 3 cents.

TWENTY-FIFTH ANNUAL REPORT. 1894. pp. 356. Postage 13 cents.

1 Part I.—Compensation in certain occupations of graduates of colleges for women, Postage 3 cents.

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Inju Part III.—Labor chronology—1894, Postage 3 cents.

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Part II.—Graded weekly wages, Postage 9 cents.

Part III.—Labor chronology—1895, Postage 3 cents.

elea ENTY-SEVENTH ANNUAL REPORT. 1896. pp. 370. Postage 13 cents.

mac Part I.—Social and industrial changes in the county of Barnstable, Postage 5 cents.

Part II.—Graded weekly wages, Postage 7 cents.

Part III.—Labor chronology—1896, Postage 3 cents.

ANNUAL STATISTICS OF MANUFACTURES.

1 { 1886—First Annual Report } Published in one volume.

1 { 1887—Second Annual Report }

1888—Third Annual Report.

1889—Fourth Annual Report, Postage 12 cents.

1890—Fifth Annual Report, Postage 13 cents.

1891—Sixth Annual Report, Postage 11 cents.

1892—Seventh Annual Report, Postage 16 cents.

1893—Eighth Annual Report, Postage 15 cents.

1894—Ninth Annual Report, Postage 11 cents.

1895—Tenth Annual Report, Postage 11 cents.

1896—Eleventh Annual Report, Postage 10 cents.,

LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 6.

APRIL.

1898.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief*. CHAS. F. PIDOIN, *First Clerk*. FRANK H. DROWN, *Second Clerk*.

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ANNUAL PUBLICATIONS (1870-1896)

OF THE

BUREAU OF STATISTICS OF LABOR.

[Those publications which are in print, at present, have the postage on same indicated, and will be forwarded by mail, on receipt of postage stated, or they will be sent by express at the expense of the recipient. Those publications, for which no postage rates are given, are out of print. All of these volumes, however, may be found and consulted in town and city public libraries. They can also be found in the Public Document Series which is sent to every city and town. In this Series, the Bureau Report is No. 15, and the Annual Statistics of Manufactures is No. 36. Only the annual issues of the Bureau, are included in accompanying list, the Census volumes for 1875, 1880, 1885, and 1895, and special reports, being omitted. They can be found in the city and town public libraries.]

ANNUAL REPORTS OF THE BUREAU.

FIRST ANNUAL REPORT. 1870. pp. 423.

Not divided into Parts. The following subjects were considered: Labor and its attendant legislation; cotton manufacturing; agricultural labor; labor and legislation in Massachusetts; origin of labor movement; origin and development of industrial questions; factory system; testimony, at hearings before the Bureau; children in factories, their employment and schooling; the wage system and its results; homes of low-paid laborers in the city of Boston; homes of the middle class; intemperance; together with an appendix containing replies to blanks, extracts therefrom, testimony and remarks, with statistical tables; summary of laws relating to labor, and catalogue of books upon labor.

SECOND ANNUAL REPORT. 1871. pp. 656.

Not divided into Parts. The following subjects were considered: Combination; combination by guilds; combinations by trades-unions; strikes; strikes in Massachusetts; wages and earnings in agriculture, fisheries, land and water travel and transportation, domestic labor and women's work, industrial occupations, and mechanical trades; cost of living; co-operation; work and home life of factory operatives, their earnings, etc.; children in factories; half-time schools; hours of factory labor; facts bearing on the ten-hour argument; hours of labor in Europe; tenement houses, or homes of low-paid laborers in Boston; poverty; intemperance; hours of labor; statements and experiences of workingmen; friendly societies.

THIRD ANNUAL REPORT. 1872. pp. 598.

Not divided into Parts. The following subjects were considered: Wages and earnings in agriculture, commercial, industrial, and mechanical occupations, and domestic labor and women's work (see Report for 1871); hours of labor; cost of living; workingmen's statistics; savings banks; condition of operatives in factory towns; Chinese labor; truck system; accidents; strikes; homes of the working classes; schools for factory children; education and half-time schools; purchasing power of wages.

FOURTH ANNUAL REPORT. 1873. pp. 522.

Not divided into Parts. The following subjects were considered: Wages and earnings; cost of living; savings and savings banks; ownership of property; co-operation; education; poverty; hours of labor.

FIFTH ANNUAL REPORT. 1874. pp. 292.

Part I.—Education and employment of young persons and children, and digest of American and European laws relative to the subject.

Part II.—Relative to professional men.

Part III.—The sanitary condition of working people in their homes and employments.

Part IV.—Comparative rates of wages and hours of labor in Massachusetts and foreign countries.

Part V.—Condition of textile fabric manufactories in Massachusetts, and digest of laws relative to machinery and sanitary matters.

Part VI.—Prices of provisions, clothing, rent, etc., in Massachusetts and Europe; purchasing power of money.

Part VII.—Savings Banks.

Part VIII.—Statistics relating to Massachusetts from the U. S. Census of 1870.

Increase in wages in cotton, woollen, and worsted mills; 1861 compared with 1873.

Comparative table, showing cost of groceries, provisions, and articles of clothing and dry goods, in 1861 and 1873.

Cost of living table. Massachusetts and foreign countries.

Homes for women.

SIXTH ANNUAL REPORT. 1875. pp. 513.

Part I.—The education of working children.

Part II.—Special effects of certain forms of employment upon female health.

Part III.—Factory legislation.

Part IV.—Condition of workingmen's families.

Part V.—Co-operation.

MASSACHUSETTS LABOR BULLETIN.

No. 6.

APRIL.

1898.

WEALTH ACCUMULATION THROUGH LIFE INSURANCE.

In the first number of the Bulletin* we presented comparative figures relating to savings, derived from the returns of the savings banks of the Commonwealth, covering the period of industrial depression from which we are now emerging.

In the present article we bring together data relating to the accumulations of capital through the life insurance companies doing business in Massachusetts, over substantially the same period, namely, the years 1890 to 1895, inclusive.

In general, of course, it is well-known that saving through life insurance is in modern times one of the most important manifestations of thrift. Its full importance as an accumulator of capital is hardly seen, however, until the figures are massed and carefully studied.

With the technical features of life insurance we do not deal, being concerned here only with its most obvious economic results, by means of which the average man is enabled to amass for the benefit of his survivors in case of death, or for himself at the end of a series of periodic payments, a larger amount than would be possible under ordinary circumstances. Life insurance is, from this point of view, a form of co-operative saving, a conservator of independence, a protection against poverty in case of death or advancing age, and is therefore an important index of the economic welfare of the community.

The following table shows the number and amount of the policies in force in companies doing business in Massachusetts, classified as to the character of the policy, and so as to show Massachusetts life companies and other companies separately :

* January, 1897.

Classification of Policies in Force of All Life Insurance Companies Doing Business in Massachusetts.

CLASSIFICATION OF COMPANIES AND DATES.		WHOLE LIFE		ENDOWMENT	
		Number	Amounts	Number	Amounts
MASSACHUSETTS LIFE INSURANCE COMPANIES.					
1	December 31, 1890,	42,904	\$116,992,800	36,348	\$98,902,376
2	December 31, 1891,	45,570	124,194,787	39,615	108,713,555
3	December 31, 1892,	50,493	135,789,416	44,145	121,214,541
4	December 31, 1893,	53,839	142,776,919	47,794	129,745,428
5	December 31, 1894,	57,678	150,743,653	51,788	138,913,099
6	December 31, 1895,	63,201	162,566,639	58,374	155,794,811
OTHER UNITED STATES LIFE INSURANCE COMPANIES.					
7	December 31, 1890,	802,005	2,326,962,145	275,527	699,374,135
8	December 31, 1891,	887,624	2,547,812,851	298,318	753,207,866
9	December 31, 1892,	979,278	2,750,559,026	324,543	805,422,850
10	December 31, 1893,	1,113,254	3,034,373,475	350,620	857,139,619
11	December 31, 1894,	1,205,927	3,147,094,838	380,032	902,840,379
12	December 31, 1895,	1,265,579	3,246,033,477	400,914	942,728,169
AGGREGATES: ALL LIFE INSURANCE COMPANIES.					
13	December 31, 1890,	844,909	2,443,954,945	311,875	798,276,511
14	December 31, 1891,	933,494	2,672,007,638	337,933	861,921,421
15	December 31, 1892,	1,029,771	2,886,348,442	368,688	926,637,391
16	December 31, 1893,	1,167,093	3,177,150,394	398,414	986,885,047
17	December 31, 1894,	1,263,605	3,297,838,491	431,820	1,041,753,478
18	December 31, 1895,	1,328,780	3,408,600,116	469,288	1,098,522,980

It is first noticeable that the number of policies in all the companies aggregated rose from 1,213,443 in 1890 to 1,865,950 in 1895. In the Massachusetts companies only, the number during this period rose from 80,961 to 122,600, and in the other United States companies, doing business within the Commonwealth, from 1,132,482 to 1,743,350. A gain is shown in each year, as compared with the previous year, in the number of policies, but in the later as compared with the earlier years there is a decrease in the average amount per policy. For example, taking all the companies, the average amount per policy in 1890 was \$2,829, declining to \$2,570 in 1895. In the Massachusetts companies, the average per policy declined from \$2,727 to \$2,634 in the period, and in the other United States companies, the decline was from \$2,836 to \$2,565.

In the Massachusetts companies, the number of whole life policies rose from 42,904 in 1890 to 63,201 in 1895; and the number of endowment policies from 36,348 to 58,374. Hence, while the number of whole life policies was rather more than 18 per cent larger than the number of endowment policies at the beginning of the period, the excess was only about eight per cent at the close, indicating a larger relative increase in the number of endowment policies carried by these companies, as compared with whole life policies.

In the other United States companies, however, the number of

Classification of Policies in Force of All Life Insurance Companies Doing Business in Massachusetts.

ALL OTHER		REVERSIONARY ADDITIONS		AGGREGATES			
Number	Amounts	Number	Amounts	Number	Amounts	Average Amount per Policy	
1,709	\$4,203,664	-	\$643,503	80,961	\$220,742,343	\$2,727	1
1,463	3,701,302	-	844,597	86,948	237,454,241	2,731	2
1,457	3,792,263	-	1,145,400	96,095	261,941,620	2,726	3
1,276	3,310,736	-	1,300,690	102,909	277,133,773	2,693	4
1,138	2,818,262	-	1,612,656	110,604	294,087,670	2,659	5
1,025	2,558,875	-	1,954,297	122,600	322,874,622	2,634	6
54,950	144,885,007	-	40,642,260	1,132,482	3,211,863,547	2,836	7
64,042	171,592,309	-	41,494,903	1,249,984	3,514,107,929	2,811	8
71,171	217,203,952	-	42,043,996	1,374,992	3,815,229,824	2,775	9
78,760	240,998,294	-	42,041,469	1,542,634	4,174,552,857	2,706	10
78,415	262,742,489	-	42,069,810	1,664,374	4,354,747,516	2,616	11
76,857	240,960,875	-	42,486,721	1,743,350	4,472,209,242	2,565	12
56,659	149,088,671	-	41,285,763	1,213,443	3,432,605,890	2,829	13
65,505	175,293,611	-	42,339,500	1,336,932	3,751,562,170	2,806	14
72,628	220,996,215	-	43,189,396	1,471,087	4,077,171,444	2,772	15
80,036	244,309,030	-	43,342,159	1,645,543	4,451,686,630	2,705	16
79,553	265,560,751	-	43,682,466	1,774,978	4,648,835,186	2,619	17
77,882	243,519,750	-	44,441,018	1,865,950	4,795,083,864	2,570	18

whole life policies was 191 per cent larger than the number of endowment policies in 1890, and 216 per cent larger in 1895. This comparison at once brings out the fact of the much greater relative importance of the endowment policy as compared with the whole life policy in Massachusetts companies in the aggregate, while, on the other hand, a very different condition obtains in the other United States companies in the aggregate; and also shows that while, as we have just seen, the number of endowment policies increases faster than the number of natural life policies in Massachusetts companies, the opposite is true of the other United States companies.

The two kinds of policies are operating toward different ends. One is accumulating for the benefit of the holder's dependents only, or, at least, is to mature at his death. The other has in view the possibility of payment during his life. The endowment policy requires a larger annual payment per \$1,000 than the other, and usually evidences the ability on the part of its holder to save in this way larger amounts annually. Nevertheless, the average amount per policy of the endowment class, in the Massachusetts companies, being \$2,721 in 1890 and \$2,669 in 1895, does not greatly vary from the average amount of all the policies; while in the other United States companies, the averages of the endowment policies, being \$2,538 in 1890 and \$2,351 in 1895, are considerably less than the averages of all policies, at each date. These averages

can be compared with the general averages previously cited. The decline noted in the general average per policy of all classes is, it will be seen, paralleled by a decline in the averages of the endowment policies.

In 1890, the amount of all endowment policies in Massachusetts companies was \$98,902,376, or 44.80 per cent of \$220,742,343, the aggregate amount of all policies. In 1895, the amount of all endowment policies in these companies had risen to \$155,794,811, or 48.25 per cent of \$322,874,622, the aggregate amount of all policies.

Compare these figures with those of other United States companies doing business in the Commonwealth. In 1890, in such companies, the amount of endowment policies was \$699,374,135, or 21.77 per cent of \$3,211,863,547, the aggregate of all policies. In 1895, the endowment policies amount to \$942,728,169, or 21.08 per cent of \$4,472,209,242, the aggregate.

Summarizing as to all companies, the endowment policies in 1890 aggregated \$798,276,511, or 23.26 per cent of \$3,432,605,890, the aggregate of all policies; while in 1895, the endowment policies aggregated \$1,098,522,980, or 22.91 per cent of \$4,795,083,864, the aggregate of all policies. In this summary, the effect of the preponderance of whole life over endowment policies in other United States companies is found to reduce the percentage of endowment of all policies much below that found in the Massachusetts companies alone; and it is also noticeable that when all the companies are thus massed the percentage of the amount of endowment policies of all policies exhibits a decline during the period, although in the Massachusetts companies different conditions prevail.

The figures thus brought together strikingly illustrate the magnitude of the system of savings thus going forward. How have they been affected by the business depression? To enable this question to be answered the following analysis table, with percentages, is introduced:

CLASSIFICATION OF COMPANIES AND YEARS.	Amounts of Whole Life Policies	Percentages of Increase as Compared with Previous Year	Amounts of Endowment Policies	Percentages of Increase as Compared with Previous Year	Aggregate Amounts of All Policies Including Additions	Percentages of Increase as Compared with Previous Year
MASSACHUSETTS LIFE INSURANCE COMPANIES.						
1890,	\$116,992,800	-	\$98,902,376	-	\$220,742,343	-
1891,	124,104,787	+6.16	108,713,555	+9.92	237,454,241	+7.57
1892,	135,789,416	+9.34	121,214,541	+11.50	261,941,620	+10.31
1893,	142,776,919	+5.15	129,745,428	+7.04	277,133,773	+5.80
1894,	150,743,653	+5.58	138,913,099	+7.07	294,087,670	+6.12
1895,	162,566,639	+7.84	155,794,811	+12.15	322,874,622	+9.79
OTHER UNITED STATES LIFE INSURANCE COMPANIES.						
1890,	2,326,962,145	-	699,374,135	-	3,211,863,547	-
1891,	2,547,812,851	+9.49	753,207,866	+7.70	3,514,107,929	+9.41
1892,	2,750,559,026	+7.96	805,422,850	+6.93	3,815,229,824	+8.57
1893,	3,034,373,475	+10.32	857,139,619	+6.42	4,174,552,857	+9.42
1894,	3,147,094,888	+3.71	902,840,379	+5.33	4,354,747,516	+4.32
1895,	3,246,033,477	+3.14	942,728,169	+4.42	4,472,209,242	+2.70

CLASSIFICATION OF COMPANIES AND YEARS.	Amounts of Whole Life Policies	Percentages of Increase as Compared with Pre- vious Year	Amounts of Endowment Policies	Percentages of Increase as Compared with Pre- vious Year	Aggregate Amounts of All Policies Including Ad- ditions	Percentages of Increase as Compared with Pre- vious Year
AGGREGATES: ALL LIFE IN- SURANCE COMPANIES.						
1890,	\$2,443,954,945	-	\$798,276,511	-	\$3,432,605,890	-
1891,	2,672,007,638	+9.33	861,921,421	+7.97	3,751,562,170	+9.29
1892,	2,886,348,442	+8.02	926,637,391	+7.51	4,077,171,444	+8.68
1893,	3,177,150,394	+10.08	986,885,047	+6.50	4,451,686,630	+9.19
1894,	3,297,838,491	+3.80	1,041,753,478	+5.56	4,648,835,186	+4.43
1895,	3,408,600,116	+3.36	1,098,522,980	+5.45	4,795,083,864	+3.15

Let us first consider the aggregates of all policies, including additions, in all the companies.

The increase in 1891 as compared with 1890 amounted to 9.29 per cent; in 1892 as compared with 1891, to 8.68 per cent; and in 1893 as compared with 1892, to 9.19 per cent. Up to 1894, therefore, no material diminution is found in the rate of increase per annum. But the increase in 1894 as compared with 1893 was only 4.43 per cent, and in 1895 as compared with 1894 only 3.15 per cent. In the last two years of the period, when the influence of the depression was at its height, the annual rate of increase was only about one-half the rate found in the first three years.

Substantially similar conditions seem to have affected the United States companies outside Massachusetts, when considered in the aggregate. In the Massachusetts life companies, however, the rate of increase during the first three years is not so uniform as that shown in other United States companies or in all companies aggregated, and the increase in 1895 as compared with 1894 is nearly as great as found in any single year of the period. For example, in the Massachusetts companies, the percentage of increase in 1891 as compared with 1890 was 7.57; in 1892 as compared with 1891 it rose to 10.31, the highest point found during the period; declined to 5.80 in 1893 as compared with 1892, the lowest point reached; rose again to 6.12 in 1894 as compared with 1893; and the period closes with an increase of 9.79 per cent in 1895 as compared with 1894. That is, in the Massachusetts companies, the effect of the depression which began in 1892 seems to be reflected in the diminished rate of increase in amount of outstanding policies (measuring the amount of capital being amassed by the policy holders) in 1893 as compared with 1892, the upward movement, or the tendency toward recovery from the depression, being resumed in the following year, reaching a point above the normal in the final year 1895. On the other hand, in the other United States companies, the influence of the depression does not appear until 1894, and continues without recovery through 1895; and the effect of the conditions obtaining in these companies produces a similar result when all the companies are massed,

notwithstanding the dissimilar conditions found in the Massachusetts companies.

The results shown in respect to all policies in the United States companies outside Massachusetts, and in all companies in the aggregate, are, in their general aspects, paralleled in respect to the whole life policies and the endowment policies considered separately, although the percentages are not identical; and this statement applies also to the whole life policies in the Massachusetts companies as compared with the aggregate of all policies in such companies. But the amount of endowment policies in the Massachusetts companies, although showing only 7.04 per cent increase and 7.07 per cent increase, in 1893 and 1894, respectively, as compared with an increase of 11.50 per cent in 1892, nevertheless shows an increase of 12.15 per cent in 1895 as compared with 1894, a percentage considerably larger than that shown in any other single year of the period. It will be borne in mind that although the endowment policies in the Massachusetts companies do not seem to have been severely affected by the depression, the average amount of each such policy, as previously shown, was \$2,721 at the beginning of the period, and \$2,669 at its close, a decline in average value of but \$52.

Let us now turn to another aspect of the subject. The figures so far presented indicate the basis upon which the revenue of the companies is determined. In a statement of the assets of the companies we may note how far the accumulation of capital has actually proceeded. The following table exhibits the aggregate assets of all the companies, classified, however, so as to show the Massachusetts companies and other United States companies separately, by years:

Assets of All Life Insurance Companies Doing Business in Massachusetts.

LIFE INSURANCE ASSETS.	1890	1891	1892	1893	1894	1895
TOTAL NET OR LEDGER ASSETS.						
Massachusetts life insurance companies,	\$708,207,452	\$769,966,379	\$836,407,508	\$910,215,352	\$1,009,735,870	\$1,089,341,399
Other United States life insurance companies,	46,069,247	49,376,443	53,471,231	55,725,982	59,608,947	64,255,784
	662,138,205	720,589,936	782,936,277	854,489,370	950,126,923	1,025,085,615
TOTAL ASSETS AS PER COMPANIES' BOOKS.						
Massachusetts life insurance companies,	\$738,553,303	\$805,264,355	\$878,375,809	\$952,899,033	\$1,058,295,254	\$1,142,069,560
Other United States life insurance companies,	48,870,731	52,362,987	56,616,456	58,436,220	62,944,188	68,105,080
	689,682,572	752,901,368	821,759,353	894,462,813	995,351,066	1,073,964,480

The total assets as shown by the companies' books aggregated \$738,553,303 in 1890, rising to \$1,142,069,560 in 1895, an increase of nearly 55 per cent. The total net or ledger assets in 1895 aggregated \$1,089,341,399, and as the relation between the total net or ledger

assets and the total assets as per companies' books is, with only fractional variations, the same at the end of each year considered, we select the net assets for analysis, presenting in the following table the increase from year to year, with percentages :

CLASSIFICATION OF COMPANIES AND YEARS.	Total Net or Ledger Assets	Percentages of Increase as Compared with Previous Year
MASSACHUSETTS LIFE INSURANCE COMPANIES.		
1890,	\$46,069,247	-
1891,	49,376,443	+7.18
1892,	53,471,231	+8.29
1893,	55,725,982	+4.22
1894,	59,608,947	+6.97
1895,	64,255,784	+7.80
OTHER UNITED STATES LIFE INSURANCE COMPANIES.		
1890,	662,138,205	-
1891,	720,589,936	+8.83
1892,	782,936,277	+8.65
1893,	854,489,370	+9.14
1894,	950,126,923	+11.19
1895,	1,025,085,615	+7.89
AGGREGATES: ALL LIFE INSURANCE COMPANIES.		
1890,	708,207,452	-
1891,	769,966,379	+8.72
1892,	836,407,508	+8.63
1893,	910,215,352	+8.82
1894,	1,009,735,870	+10.93
1895,	1,089,341,399	+7.88

Referring first to the aggregates for all companies, we note an increase of 8.72 per cent in 1891 as compared with 1890, the annual increase in the years 1892 and 1893 being 8.63 per cent and 8.82 per cent, respectively. In the year 1894 as compared with 1893, there is an increase of 10.93 per cent, and in 1895 as compared with 1894, an increase of 7.88 per cent. When all the companies are thus combined, no decline appears on account of the business depression; on the contrary, the annual increase up to 1894 is comparatively uniform, followed by an unusual increase in that year and a very slight decline in the following year.

When the Massachusetts life companies are considered separately, however, a decline in the rate of increase is to be noted in 1893, as compared with 1892; that is to say, while the total net or ledger assets show an increase in each year, the percentage of increase, which was 7.18 in 1891 as compared with 1890, and 8.29 in 1892 as compared with 1891, was only 4.22 in 1893 as compared with 1892. In the following year, however, recovery is noted, the increase in 1894 as compared with 1893 being 6.97 per cent, and in 1895 as compared with 1894, 7.80 per cent, a larger percentage of increase than is found in any other single year, except the year 1892.

In the companies outside Massachusetts, conditions appear similar to those noted for all companies in the aggregate; that is to say, the

annual increase is substantially uniform except for the single year 1894, in which, as compared with 1893, there was an increase of 11.19 per cent. For the other years, the increase was 8.83 per cent in 1891, 8.65 per cent in 1892, 9.14 per cent in 1893, and 7.89 per cent in 1895.

We may now trace the distribution of this mass of capital into the channels of commerce and industry. In order to do this we first present, in the following table, a detailed statement of the ledger assets of the Massachusetts companies, by years :

Classification of Assets of Massachusetts Life Insurance Companies — 1890-1895.

CLASSIFICATION OF ASSETS AS PER LEDGER ACCOUNTS.	1890	1891	1892	1893	1894	1895
Cost value of real estate, . . .	\$3,649,568	\$3,950,196	\$4,035,787	\$4,381,144	\$4,788,955	\$5,087,573
Loans on mortgages of real estate (first liens),	12,856,253	13,236,370	14,711,486	15,123,627	17,428,145	19,586,368
Loans on collateral securities, . .	4,444,600	4,525,344	4,492,346	4,281,255	3,468,282	3,125,393
Other loans, chiefly on policies as- signed as collateral,	821,295	920,382	932,137	1,151,745	1,434,110	1,952,306
Premium notes or loans on policies,	1,868,921	1,902,095	1,887,095	1,971,776	1,729,187	1,551,762
Stocks and bonds owned (cost value),	21,623,110	23,447,956	25,706,478	26,918,760	28,629,979	31,035,681
Cash in hand, or on deposit, . .	789,483	1,374,006	1,682,701	1,872,532	2,122,386	1,897,559
Agents' ledger balances, . . .	15,668	16,340	18,050	24,630	21,606	20,420
Bills receivable and miscellaneous assets, not previously specified,	2,225	5,221	7,375	7,493	4,750	4,250
LEDGER ASSETS (AS PER BAL- ANCE),	\$46,071,123	\$49,377,910	\$52,473,455	\$55,732,962	\$59,622,400	\$64,261,312
Deduct depreciation from cost of assets,	1,876	-	-	6,980	13,453	-
Deduct depreciation from cost of real estate,	-	1,467	2,224	-	-	-
Deduct agents' credit balances, .	-	-	-	-	-	5,528
Total Amount of Deductions, .	\$1,876	\$1,467	\$2,224	\$6,980	\$13,453	\$5,528
TOTAL NET OR LEDGER ASSETS,	\$46,069,247	\$49,376,443	\$53,471,231	\$55,725,982	\$59,608,947	\$64,255,784

It will be noticed that certain items are deducted from the ledger balances in order to obtain the net ledger assets as presented in the table on page 6. We may disregard these deductions, however, as they are not very important as compared with the grand total, and consider the details which make up the assets as per ledger balances. The total amount, before the slight deductions are made, is, for the year 1895, \$64,261,312. Of this sum, \$31,035,681, nearly one-half, consists of stocks and bonds owned, taken at their cost value. Another large item, \$19,586,368, nearly one-third of the total, consists of loans on first mortgages of real estate. The value of real estate owned outright is \$5,087,573. The three items covered in the aggregate \$55,709,622, or 86.69 per cent of the total assets. The remainder is made up of cash, loans, more or less temporary, on policies and collateral, and miscellaneous items. We next present a similar table for the other United States companies.

Classification of Assets of Life Insurance Companies of Other States Doing Business in Massachusetts — 1890-1895.

CLASSIFICATION OF ASSETS AS PER LEDGER ACCOUNTS.	1890	1891	1892	1893	1894	1895
Cost value of real estate, . . .	\$74,262,659	\$78,196,134	\$87,934,472	\$96,387,322	\$109,978,361	\$117,453,921
Loans on mortgages of real estate (first liens),	274,607,921	297,219,507	310,765,769	338,905,358	366,247,772	381,526,376
Loans on collateral securities, . . .	31,206,533	36,020,211	33,018,343	27,539,072	27,478,012	27,408,565
Other loans, chiefly on policies assigned as collateral, . . .	4,019,457	5,104,563	6,309,714	12,989,809	14,093,807	17,240,948
Premium notes, or loans on policies, and premiums in transit, . .	10,988,382	10,699,208	10,422,195	11,825,786	11,995,976	11,473,640
Stocks and bonds owned (chiefly cost value),	235,333,350	257,600,688	295,266,776	321,200,333	372,131,344	418,714,785
Cash in hand, in transit, or on deposit,	29,470,478	32,507,076	36,135,426	43,268,700	44,763,549	47,673,956
Commuted commissions, etc., . .	807,509	1,250,683	1,552,706	1,207,483	1,055,007	1,003,152
Agents' ledger balances, . . .	1,849,824	2,473,639	1,923,462	2,476,787	2,775,322	1,908,694
Bills receivable and miscellaneous assets, not previously specified,	291,902	288,198	301,545	378,707	690,834	765,811
LEDGER ASSETS (AS PER BALANCE),	\$662,838,015	\$721,259,907	\$783,635,408	\$856,179,357	\$951,209,984	\$1,025,169,848
Deduct depreciation from cost of assets,	647,701	669,971	644,462	1,637,076	1,083,061	-
Deduct depreciation from cost of real estate,	52,109	-	54,669	52,911	-	-
Deduct agents' credit balances, . .	-	-	-	-	-	29,314
Deduct bills payable,	-	-	-	-	-	54,919
Total Amount of Deductions,	\$699,810	\$669,971	\$699,131	\$1,689,987	\$1,083,061	\$84,233
TOTAL NET OR LEDGER ASSETS,	\$662,138,205	\$720,589,936	\$782,936,277	\$854,489,370	\$950,126,923	\$1,025,085,615

Of \$1,025,169,848, the total amount of ledger assets in 1895, minor deductions being disregarded as before, the cost value of stocks and bonds owned was \$418,714,785, not quite so large a proportion as was found in the Massachusetts companies; loans on first mortgages of real estate aggregated \$381,526,376, a somewhat larger proportion than obtained in the Massachusetts companies; and \$117,453,921 represented the value of real estate owned. These three items aggregated \$917,695,082, or 89.52 per cent of the total assets.

In order to show clearly just what proportion of the total assets the different classes represented at the end of each year of the period, the following percentage table is introduced:

CLASSIFICATION OF COMPANIES AND ASSETS.	PERCENTAGES OF ASSETS, DECEMBER 31 —					
	1890	1891	1892	1893	1894	1895
MASSACHUSETTS LIFE INSURANCE COMPANIES.						
Real estate owned,	7.92	8.00	7.55	7.86	8.02	7.92
Stocks and bonds owned,	46.93	47.49	48.07	48.30	48.02	48.30
Loans on first mortgages of real estate, . . .	27.91	26.81	27.51	27.14	29.23	30.48
Loans on collateral securities,	9.65	9.16	8.40	7.68	5.82	4.86
Other assets,	7.59	8.54	8.47	9.02	8.91	8.44
TOTAL ASSETS,	100.00	100.00	100.00	100.00	100.00	100.00

CLASSIFICATION OF COMPANIES AND ASSETS.	PERCENTAGES OF ASSETS, DECEMBER 31 —					
	1890	1891	1892	1893	1894	1895
OTHER UNITED STATES LIFE INSURANCE COMPANIES.						
Real estate owned,	11.20	10.84	11.22	11.26	11.56	11.46
Stocks and bonds owned,	35.50	35.72	37.68	37.51	39.12	40.84
Loans on first mortgages of real estate,	41.43	41.21	39.66	39.58	38.50	37.22
Loans on collateral securities,	4.71	4.99	4.21	3.22	2.89	2.67
Other assets,	7.16	7.24	7.23	8.43	7.93	7.81
TOTAL ASSETS,	100.00	100.00	100.00	100.00	100.00	100.00
AGGREGATES: ALL LIFE INSURANCE COMPANIES.						
Real estate owned,	10.99	10.66	10.99	11.05	11.35	11.25
Stocks and bonds owned,	36.25	36.47	38.34	38.17	39.65	41.28
Loans on first mortgages of real estate,	40.55	40.29	38.88	38.82	37.96	36.82
Loans on collateral securities,	5.03	5.26	4.48	3.49	3.06	2.80
Other assets,	7.18	7.32	7.31	8.47	7.98	7.85
TOTAL ASSETS,	100.00	100.00	100.00	100.00	100.00	100.00

When all the companies are considered, we find that at the end of the year 1895 real estate owned constituted 11.25 per cent of the total assets: stocks and bonds owned, 41.28 per cent; loans on first mortgages of real estate, 36.82 per cent; loans on collateral securities, 2.80 per cent; and other assets of all kinds, only 7.85 per cent. As compared with the conditions obtaining in the Massachusetts life companies, the percentages are in each case lower, except those representing real estate owned and loans on first mortgages of real estate, for which the percentages in the Massachusetts companies are, respectively, 7.92 and 30.48.

In the companies outside Massachusetts, the percentages approach those shown for all companies in the aggregate. In comparing the different years so as to note the changes which have taken place during the period, it will be found that the proportion of real estate owned of the total assets has not materially changed. The percentage of stocks and bonds owned has increased in the Massachusetts life companies from 46.93 in 1890 to 48.30 in 1895, showing, however, no material change since 1892. In the other United States companies in this class of assets, the percentage has risen from 35.50 in 1890, to 40.84 in 1895, the increase being gradual since 1891: and the same statement applies to all companies in the aggregate, in which the percentage of stocks and bonds owned has risen from 36.25 in 1890 to 41.28 in 1895. In the Massachusetts life companies, loans on first mortgages of real estate, which constituted 27.91 per cent of the total assets in 1890, constituted 30.48 per cent in 1895, the tendency to increase appearing after 1893. In the other United States companies, however, the percentage of this class of assets has fallen from 41.43 in 1890, to 37.22 in 1895, the tendency to decline appearing in 1892 and gaining increased force in 1894. This condition obtaining in the other United States companies

affects the percentages when all the companies are aggregated, so that loans on first mortgages of real estate, which constituted 40.55 per cent of the assets of all the companies when considered together in 1890, constituted only 36.82 per cent in 1895, the tendency to decline manifesting itself subsequent to 1891, or within the period of industrial depression. In the Massachusetts companies, loans on collateral securities, which constituted 9.65 per cent of the total assets in 1890 and 9.16 per cent in 1891, dropped to 8.40 per cent in 1892, declined still farther to 7.68 per cent in 1893, and to 5.82 per cent in 1894, closing at 4.86 per cent in 1895. In the other United States companies, loans on collateral securities constituted 4.71 per cent of the total assets in 1890, 4.99 per cent in 1891, 4.21 per cent in 1892, and then dropped to 3.22 per cent in 1893, declining to 2.89 per cent in 1894, closing at 2.67 per cent in 1895. The same general tendency is, of course, observable in all the companies, when considered together, the decline being from 5.03 per cent in 1890 to 2.80 per cent in 1895.

The two principal items of assets are stocks and bonds owned and loans on first mortgages of real estate, the first comprising the largest single item of assets in 1895, and so far as all the companies are concerned, if the stocks and bonds owned and the securities held as collateral are combined, they will be found to constitute 44.08 per cent of the total assets, while in the Massachusetts companies considered separately, these two items constitute 53.16 per cent of the total assets, more than one-half.

The items "stocks and bonds owned" and "securities held as collateral" require some further analysis in order to bring out the various channels of investment into which the capital amassed through the system of life insurance savings has been diverted. The following table exhibits a broad classification of such assets :

Classification of All Life Insurance Companies Doing Business in Massachusetts.

CLASSIFICATION OF COMPANIES AND SECURITIES.	1890	1891	1892	1893	1894	1895
MASSACHUSETTS LIFE INSURANCE COMPANIES.	\$27,889,398	\$26,076,947	\$31,087,141	\$33,067,986	\$34,270,477	\$36,743,114
<i>Securities Held as Collateral.</i>	\$5,488,076	\$5,588,974	\$5,271,840	\$5,678,609	\$4,638,792	\$4,482,488
Massachusetts securities, . .	1,312,627	1,502,420	1,261,703	1,220,166	1,062,460	1,204,062
Other United States securities, .	4,175,449	4,082,054	4,010,137	4,376,643	3,499,787	3,278,426
Foreign securities,	-	34,500	-	81,800	76,545	-
<i>Stocks and Bonds Owned by the Companies.</i>	\$22,401,322	\$20,487,973	\$25,815,301	\$27,389,377	\$29,631,685	\$32,260,626
Massachusetts stocks and bonds, .	5,220,759	5,670,120	5,818,725	6,426,129	6,196,609	5,989,857
Other United States stocks and bonds,	17,180,563	14,792,603	19,971,326	20,628,123	23,425,076	26,270,769
Foreign stocks and bonds, . .	-	25,250	25,250	335,125	10,000	-
OTHER UNITED STATES LIFE INSURANCE COMPANIES.	\$285,880,556	\$322,191,722	\$353,617,073	\$363,056,444	\$423,027,540	\$460,817,707
<i>Securities Held as Collateral.</i>	\$40,051,256	\$64,843,421	\$45,370,642	\$39,273,381	\$36,398,075	\$33,085,117
Massachusetts securities, . . .	246,639	10,700	135,850	166,145	157,445	56,845
Other United States securities, .	39,804,617	64,832,721	45,234,792	39,107,236	36,240,630	32,928,272
Foreign securities,	246,180	316,487	114,160	124,680	239,235	97,350

Classification of All Life Insurance Companies Doing Business in Massachusetts
— Concluded.

CLASSIFICATION OF COMPANIES AND SECURITIES.	1890	1891	1892	1893	1894	1895
<i>Stocks and Bonds Owned by the Companies.</i>	\$245,829,300	\$257,338,301	\$308,246,431	\$323,783,063	\$386,629,465	\$427,732,590
Massachusetts stocks and bonds, .	4,148,567	422,944	744,005	6,369,422	2,539,202	7,868,399
Other United States stocks and bonds, .	229,969,907	244,195,227	290,651,666	300,356,200	364,989,477	400,817,339
Foreign stocks and bonds, . . .	11,710,826	12,720,130	16,850,670	17,057,441	19,100,786	19,046,852
 AGGREGATES: ALL LIFE INSURANCE COMPANIES.	 \$313,769,954	 \$348,258,669	 \$384,704,214	 \$396,124,430	 \$457,298,017	 \$497,560,821
Securities held as collateral, . . .	45,539,332	70,432,395	50,642,482	44,951,990	41,036,867	37,567,605
Stocks and bonds owned by the companies,	268,230,622	277,826,274	334,061,732	351,172,440	416,261,150	459,993,216

Referring first to the aggregates, we find that the amount of securities held as collateral for loans declined from \$45,539,332 in 1890 to \$37,567,605 in 1895: while the stocks and bonds owned increased from \$268,230,622 to \$459,993,216. In 1891 as compared with 1890, there was a marked increase in securities held as collateral, followed in the next year by a nearly corresponding decline, and in every subsequent year a further decline is to be found. Substantially the same statement applies to the companies outside Massachusetts when considered as a class. In the Massachusetts companies, however, the value of securities held as collateral was quite uniform until 1894 in which year a sharp decline is found as compared with 1893, followed by a slight additional decline in 1895.

Referring to conditions as they existed at the close of the period, namely, at the end of the year 1895, the Massachusetts companies held \$4,482,488 in securities as collateral, of which \$1,204,062 was in Massachusetts securities. They owned outright \$32,260,626 in stocks and bonds, of which \$5,989,857 was in Massachusetts stocks and bonds. The other United States companies held \$33,085,117 in securities as collateral, \$56,845 being in Massachusetts securities; and owned outright \$427,732,590 in stocks and bonds of which \$7,868,399 was in Massachusetts stocks and bonds. To summarize, assets of this kind represented the stocks and bonds of various enterprises amounting in the aggregate to \$497,560,821, of which \$15,119,163 represented Massachusetts stocks and bonds and \$463,297,456 other United States securities. To this extent, in each case, the capital amassed through life insurance really supported the enterprises whose stocks and bonds are included in these assets. What were these enterprises? To answer this question a detailed classification of securities is necessary, and this is given, for the Massachusetts companies, in the following table:

Classification of Securities of Massachusetts Life Insurance Companies.

CLASSIFICATION OF SECURITIES AND YEARS.	COLLATERAL		OWNED		AGGREGATES		
	Home Securi- ties	Out-of- State Securities	Home Securities	Out-of- State Securities	Home Securities	Out-of- State Securities	Totals
RAILROAD AND CANAL BONDS AND STOCKS.							
1890,	\$581,360	\$3,209,365	\$393,975	\$11,821,495	\$975,335	\$15,030,860	\$16,006,195
1891,	652,685	3,075,639	316,866	9,212,237	969,554	12,287,876	13,257,430
1892,	770,760	3,065,526	227,130	13,484,479	997,890	16,570,005	17,567,895
1893,	499,001	3,099,111	341,710	14,076,343	840,711	17,175,454	18,016,165
1894,	101,749	2,624,314	582,445	15,310,116	684,194	17,994,430	18,618,624
1895,	133,579	1,887,180	737,056	16,581,192	870,635	18,468,372	19,339,007
NATIONAL AND SAVINGS BANKS AND TRUST COMPANIES.							
1890,	80,132	165,900	1,048,029	388,608	1,128,161	554,508	1,682,669
1891,	105,310	108,960	819,170	629,250	924,480	738,210	1,662,690
1892,	68,993	115,423	651,896	760,296	720,889	875,719	1,596,608
1893,	240,857	108,815	1,078,191	229,420	1,319,048	338,235	1,657,283
1894,	194,837	110,960	1,064,352	162,800	1,259,189	273,760	1,532,949
1895,	245,558	135,490	1,091,923	289,370	1,337,481	424,860	1,762,341
COUNTY, STATE, CITY, AND TOWN BONDS.							
1890,	47,500	91,400	3,594,605	3,968,110	3,642,105	4,059,510	7,701,615
1891,	37,500	180,625	4,228,659	4,340,487	4,266,159	4,521,112	8,787,271
1892,	37,500	80,300	4,349,974	4,765,984	4,387,474	4,846,284	9,233,758
1893,	62,200	173,860	4,340,728	5,460,008	4,402,928	5,633,868	10,036,796
1894,	107,000	35,930	3,893,524	6,664,483	4,000,524	6,700,413	10,700,937
1895,	221,255	211,246	3,510,428	7,325,313	3,731,683	7,536,559	11,268,242
MANUFACTURING AND TRADE COM- PANIES AND ASSOCIATIONS.							
1890,	370,120	500,185	39,150	35,650	409,270	535,835	945,105
1891,	474,450	468,341	51,475	3,888	525,925	472,229	998,154
1892,	213,220	375,605	44,725	8,750	257,945	384,355	642,300
1893,	333,395	654,070	167,500	129,500	500,895	783,570	1,284,465
1894,	502,075	483,745	124,038	135,229	626,113	618,974	1,245,087
1895,	243,970	610,370	148,950	896,288	392,920	1,506,658	1,899,578
UNITED STATES BONDS.							
1890,	-	-	-	494,300	-	494,300	494,300
1891,	-	-	-	304,050	-	304,050	304,050
1892,	-	-	-	465,000	-	465,000	465,000
1893,	-	3,420	-	462,900	-	466,320	466,320
1894,	-	3,390	-	814,100	-	817,490	817,490
1895,	-	3,300	174,000	719,500	174,000	722,800	896,800
LIFE, FIRE, AND MARINE INSUR- ANCE COMPANIES.							
1890,	46,575	3,659	-	-	46,575	3,659	50,234
1891,	52,642	34,960	-	-	52,642	34,960	87,602
1892,	44,250	59,460	-	-	44,250	59,460	103,710
1893,	35,400	58,350	-	-	35,400	58,350	93,750
1894,	74,399	45,760	-	-	74,399	45,760	120,159
1895,	75,400	28,175	-	-	75,400	28,175	103,575
TELEGRAPH, EXPRESS, AND OTHER TRANSPORTATION COMPANIES.							
1890,	17,140	106,350	-	1,000	17,140	107,350	124,490
1891,	-	63,509	-	1,000	-	64,509	64,509
1892,	-	72,700	-	1,000	-	73,700	73,700
1893,	-	78,251	-	33,267	-	111,518	111,518
1894,	-	76,890	-	35,657	-	112,547	112,547
1895,	8,500	184,970	-	110,343	8,500	295,313	303,813

Classification of Securities of Massachusetts Life Insurance Companies
— Concluded.

CLASSIFICATION OF SECURITIES, AND YEARS.	COLLATERAL		OWNED		AGGREGATES		
	Home Securi- ties	Out-of- State Securities	Home Securities	Out-of- State Securities	Home Securities	Out-of- State Securities	Totals
GAS, ELECTRIC LIGHT, AND COAL COMPANIES.							
1890,	\$63,800	\$13,000	\$140,000	\$96,350	\$203,800	\$109,350	\$313,150
1891,	39,830	80,150	160,750	106,400	200,550	186,550	387,130
1892,	39,730	190,613	392,750	134,160	432,480	324,773	757,253
1893,	22,113	168,725	386,750	197,188	408,863	365,913	774,776
1894,	21,150	165,038	390,500	196,500	411,650	361,538	773,188
1895,	179,600	175,020	220,000	201,650	399,600	376,670	776,270
REAL ESTATE, LAND, MINING, AND IMPROVEMENT COMPANIES.							
1890,	106,000	85,590	-	375,050	106,000	460,640	566,640
1891,	140,000	74,370	93,200	216,566	233,200	290,936	524,136
1892,	87,250	30,510	152,250	373,407	239,500	403,917	643,417
1893,	27,200	113,221	87,250	372,622	114,450	485,843	600,293
1894,	61,250	30,305	117,750	114,496	179,000	144,801	323,801
1895,	96,200	42,675	83,500	146,013	179,700	188,688	368,388
RELIGIOUS, EDUCATIONAL, AND SOCIAL INSTITUTIONS.							
1890,	-	-	5,000	-	5,000	-	5,000
1891,	-	-	-	3,975	-	3,975	3,975
1892,	-	-	-	3,500	-	3,500	3,500
1893,	-	-	24,000	2,000	24,000	2,000	26,000
1894,	-	-	24,000	1,695	24,000	1,695	25,695
1895,	-	-	24,000	1,100	24,000	1,100	25,100

The first group of securities shown in the preceding table comprises railroad and canal bonds and stocks. Of such securities, the Massachusetts life companies held either as owners or as collateral \$19,339,007 in 1895, the group showing an increase of more than \$3,000,000 since 1890. This increase has been continuous except for the year 1891, in which a decline appeared as compared with the preceding year. Of the total amount in 1895, the bonds and stocks of Massachusetts corporations comprised \$870,635, the remainder, \$18,468,372, being out-of-state securities. The next group includes the securities of national and savings banks and trust companies; of these, the Massachusetts life companies held in 1895, \$1,762,341, the amount held in 1890 being \$1,682,669, the figures for each of the subsequent years being substantially uniform. In this class, the home securities aggregated \$1,337,481 and the out-of-state securities \$424,860. The Massachusetts companies held in 1895, \$11,268,242 in county, state, city, and town bonds, the amount having increased from \$7,701,615 in 1890, the increase being gradual from year to year. In this class, the home securities aggregated \$3,731,683 and the out-of-state securities \$7,536,559. The next group comprises the securities of manufacturing and trade companies and associations. The investments in these also show a gradual increase since 1890, the amount held by the Massachusetts companies rising from \$945,103 to \$1,899,578 in 1895, an increase of more than 100 per cent. The larger part of these

securities are of out-of-state concerns, which represent \$1,506,658 as against \$392,920, the value of the home securities. The amount of United States bonds held aggregated \$896,800 in 1895, an increase of over 80 per cent since 1890. The securities of life, fire, and marine insurance companies formed a comparatively small amount of the total investments of the Massachusetts life companies, aggregating, in 1895, \$103,575, an increase of more than 100 per cent, however, since 1890. In the securities of telegraph, express, and other transportation companies held by the Massachusetts companies, there was an increase of more than 100 per cent during the period, the aggregate amount in 1895 being \$303,813, of which \$295,313 represents the value of out-of-state securities of this class. The Massachusetts life companies held \$776,270 in the securities of gas, electric light, and coal companies, these also showing an increase of more than 100 per cent since 1890, the aggregate amount being almost equally divided between home securities and out-of-state securities. In the securities of real estate, land, mining, and improvement companies, a decline is shown since 1890, the aggregate value of such investments falling from \$566,640 to \$368,388 in 1895. An insignificant amount, aggregating \$25,100, represents the value of securities of religious, educational, and social institutions held by the Massachusetts companies.

The next table presents similar data for the other United States life companies operating in Massachusetts.

Classification of Securities of Life Insurance Companies of Other States Doing Business in Massachusetts.

CLASSIFICATION OF SECURITIES AND YEARS.	COLLATERAL		OWNED		AGGREGATES		
	Home Securi- ties	Out-of- State Securities	Home Securi- ties	Out-of- State Securities	Home Securi- ties	Out-of- State Securities	Totals
RAILROAD AND CANAL BONDS AND STOCKS.							
1890,	-	\$30,085,131	-	\$164,239,015	-	\$194,324,146	\$194,324,146
1891,	-	38,843,264	\$96,250	179,328,105	\$96,250	218,171,369	218,267,619
1892,	\$31,350	32,044,789	531,167	205,666,309	562,517	237,711,098	238,273,615
1893,	111,025	26,736,608	1,689,786	214,847,416	1,800,811	241,584,024	243,384,835
1894,	13,000	22,209,785	2,147,000	243,293,969	2,160,000	265,503,754	267,663,754
1895,	4,120	23,551,682	1,527,130	272,374,341	1,531,250	295,926,023	297,457,273
NATIONAL AND SAVINGS BANKS AND TRUST COMPANIES.							
1890,	215,000	2,238,746	3,928,000	7,378,787	4,143,000	9,617,533	13,760,533
1891,	-	5,119,598	30,700	12,780,592	30,700	17,900,190	17,930,890
1892,	17,500	2,811,400	39,550	12,400,110	57,050	15,211,510	15,268,560
1893,	17,500	3,795,266	4,584,050	10,833,323	4,601,550	14,628,589	19,230,139
1894,	-	4,310,527	37,700	15,668,775	37,700	19,979,302	20,017,002
1895,	19,250	2,687,880	5,148,080	12,965,468	5,167,330	15,653,348	20,820,678
COUNTY, STATE, CITY, AND TOWN BONDS.							
1890,	19,950	1,771,757	220,567	52,385,099	240,517	54,156,556	54,397,373
1891,	-	14,222,546	295,994	43,787,069	295,994	58,009,615	58,305,609
1892,	-	2,300,482	173,378	61,625,290	173,378	63,925,772	64,099,150
1893,	-	1,372,784	95,586	64,775,493	95,586	66,148,277	66,243,863
1894,	6,000	1,338,245	354,502	79,251,568	360,502	80,589,753	80,950,255
1895,	-	749,399	1,193,189	89,819,728	1,193,189	90,569,127	91,762,316

*Classification of Securities of Life Insurance Companies of Other States Doing
Business in Massachusetts — Continued.*

CLASSIFICATION OF SECURITIES AND YEARS.	COLLATERAL		OWNED		AGGREGATES		
	Home Securi- ties	Out-of- State Securities	Home Securi- ties	Out-of- State Securities	Home Securi- ties	Out-of- State Securities	Totals
MANUFACTURING AND TRADE COMPANIES AND ASSOCIATIONS.							
1890,	\$11,689	\$1,230,970	-	\$1,324,240	\$11,689	\$2,555,210	\$2,566,899
1891,	10,700	1,515,889	-	1,834,511	10,700	3,350,400	3,361,100
1892,	-	2,015,243	-	2,004,350	-	4,019,593	4,019,593
1893,	10,690	1,733,273	-	1,326,468	10,690	3,059,741	3,070,431
1894,	17,200	1,632,245	-	3,170,222	17,200	4,802,467	4,819,667
1895,	7,000	1,828,505	-	3,414,020	7,000	5,242,525	5,249,525
UNITED STATES BONDS.							
1890,	-	233,297	-	5,907,356	-	6,140,653	6,140,653
1891,	-	96,220	-	4,340,444	-	4,436,664	4,436,664
1892,	-	174,000	-	4,546,548	-	4,720,548	4,720,548
1893,	-	223,535	-	4,382,100	-	4,605,635	4,605,635
1894,	-	2,235,540	-	14,220,523	-	16,456,063	16,456,063
1895,	-	89,588	-	7,047,212	-	7,136,800	7,136,800
LIFE, FIRE, AND MARINE IN- SURANCE COMPANIES.							
1890,	-	554,184	-	97,035	-	651,219	651,219
1891,	-	995,640	-	91,420	-	1,087,060	1,087,060
1892,	-	1,016,409	-	101,765	-	1,118,174	1,118,174
1893,	-	1,103,150	-	83,250	-	1,186,400	1,186,400
1894,	2,500	817,756	-	82,920	2,500	900,676	903,176
1895,	-	299,735	-	59,510	-	359,245	359,245
TELEGRAPH, EXPRESS, AND OTHER TRANSPORTATION COM- PANIES.							
1890,	-	2,359,749	-	1,496,687	-	3,856,436	3,856,436
1891,	-	1,157,297	-	4,248,983	-	5,406,280	5,406,280
1892,	-	1,821,849	-	4,558,166	-	6,380,015	6,380,015
1893,	-	1,640,833	-	5,724,235	-	7,365,068	7,365,068
1894,	-	1,831,278	-	5,723,103	-	7,554,381	7,554,381
1895,	-	1,643,817	-	5,499,535	-	7,143,352	7,143,352
GAS, ELECTRIC LIGHT, AND COAL COMPANIES.							
1890,	-	855,607	-	2,928,900	-	3,784,507	3,784,507
1891,	-	1,040,250	-	3,534,879	-	4,575,129	4,575,129
1892,	87,000	1,145,859	-	4,750,320	87,000	5,896,179	5,983,179
1893,	26,930	1,210,161	-	5,665,573	26,930	6,875,734	6,902,664
1894,	118,745	1,025,140	-	6,453,665	118,745	7,478,805	7,597,550
1895,	26,475	712,094	-	8,042,738	26,475	8,754,832	8,781,307
REAL ESTATE, LAND, MINING, AND IMPROVEMENT COMPANIES.							
1890,	-	445,176	-	450,205	-	895,381	895,381
1891,	-	1,842,017	-	2,154,451	-	3,996,468	3,996,468
1892,	-	1,904,761	-	2,470,146	-	4,374,907	4,374,907
1893,	-	1,291,626	-	3,862,682	-	5,154,308	5,154,308
1894,	-	821,114	-	6,273,741	-	7,094,855	7,094,855
1895,	-	1,459,222	-	8,984,773	-	10,443,995	10,443,995
FOREIGN GOVERNMENT BONDS.							
1890,	-	-	-	5,345,600	-	5,345,609	5,345,609
1891,	-	-	-	4,689,063	-	4,689,063	4,689,063
1892,	-	-	-	9,256,522	-	9,256,522	9,256,522
1893,	-	-	-	5,781,301	-	5,781,301	5,781,301
1894,	-	-	-	9,769,437	-	9,769,437	9,769,437
1895,	-	-	-	11,475,896	-	11,475,896	11,475,896

Classification of Securities of Life Insurance Companies of Other States Doing Business in Massachusetts — Concluded.

CLASSIFICATION OF SECURITIES AND YEARS.	COLLATERAL		OWNED		AGGREGATES		
	Home Securi- ties	Out-of- State Securities	Home Securi- ties	Out-of- State Securities	Home Securi- ties	Out-of- State Securities	Totals
RELIGIOUS, EDUCATIONAL, AND SOCIAL INSTITUTIONS.							
1890,	-	-	-	\$127,800	-	\$127,800	\$127,800
1891,	-	-	-	125,840	-	125,840	125,840
1892,	-	-	-	122,810	-	122,810	122,810
1893,	-	-	-	131,800	-	131,800	131,800
1894,	-	\$1,000	-	182,400	-	183,400	183,400
1895,	-	850	-	180,970	-	181,820	181,820
MISCELLANEOUS.							
1894,	-	18,000	-	-	-	18,000	18,000
1895,	-	5,500	-	-	-	5,500	5,500

The value of railroad and canal bonds and stocks held by these companies in 1895 aggregated \$297,457,273, rising gradually from \$194,324,146, in 1890. Of the aggregate amount, \$1,531,250 represents the securities of Massachusetts corporations. The total value of the securities of national and savings banks and trust companies aggregated \$20,820,678 in 1895, and this amount has risen gradually from \$13,760,533 in 1890. Nearly one-fourth of the whole amount represents the securities of Massachusetts corporations of this kind. In the class of county, state, city, and town bonds the aggregate amount held in 1895 was \$91,762,316, having risen from \$54,397,373 in 1890. Of the securities of manufacturing and trade companies and associations, the aggregate amount held reached \$5,249,525 in 1895, an increase of more than 100 per cent since 1890. Investments in United States bonds rose from \$6,140,653 in 1890 to \$7,136,800 in 1895; and, as in the case of the Massachusetts life companies, a comparatively small amount was invested in life, fire, and marine insurance securities, declining from \$651,219 in 1890 to \$359,245 in 1895, although in each of the years 1891, 1892, and 1893 more than \$1,000,000 was invested in this class of securities. The value of the investments in the securities of telegraph, express, and other transportation companies rose from \$3,886,436 in 1890 to \$7,143,352 in 1895; and in the securities of gas, electric light, and coal companies, from \$3,784,507 to \$8,781,307. Investments in securities of real estate, land, mining, and improvement companies also show an increase, rising from \$895,381 in 1890 to \$10,443,995 in 1895. These life companies outside Massachusetts also held in 1895 foreign government bonds amounting to \$11,475,896, an increase from \$5,345,609, the amount held in 1890; and the value of the securities of religious, educational, and social institutions held by these companies in 1895 amounted to \$181,820, a slight increase over the amount held in 1890.

If the figures for certain classes of securities held by all the life companies, as shown in the preceding tables, be combined, we shall find that the total securities of railroad and canal companies in 1895 amounted to \$316,796,280. Of this amount the canal bonds formed a comparatively small item. From the Ninth Report of the Interstate Commerce Commission, Statistics of Railways, page 49, it appears that the total amount outstanding of railway stocks and bonds held in the country in 1895 by owners other than railway companies was \$8,155,832,670. It therefore follows that of this amount nearly four per cent was held by the life insurance companies organized in Massachusetts, or doing business in Massachusetts. The total national and savings banks' and trust companies' securities held by all the life companies in 1895 was \$22,583,019, as will be found by combining the figures in the foregoing tables, of which the savings banks' securities constituted an insignificant proportion. Of county, state, city, and town bonds in 1895, all the companies held in the aggregate \$103,030,558, and of the securities of manufacturing and trade companies and associations, \$7,149,103. The total value of United States bonds held by all the companies amounted to \$8,033,600. The aggregate amount of telegraph, express, and other transportation companies' securities was \$7,447,165; of gas, electric light, and coal companies, \$9,557,577; and of real estate, land, mining, and improvement companies, \$10,812,383. Therefore, excluding the municipal and government bonds, it appears that the total value of the securities of industrial and commercial enterprises held by these companies in 1895, including under that term transportation companies, banks, companies for the transmission of intelligence, manufacturing and trade companies and associations, gas, electric light, and coal companies, and real estate, land, mining, and improvement companies, was \$374,345,527.

In the final analysis, this large amount of capital, employed in industry and trade, is really owned by those who are accumulating through life insurance. Those who directly manage the various enterprises simply use it as trustees. The concentration of capital is frequently discussed. These industrial and commercial companies may be limited in number, and within them capital may be concentrated, but its real ownership is distributed among the holders of the 1,865,950 policies, that were outstanding in 1895. To the extent of \$374,345,527, these policy holders, each policy on the average not greatly exceeding \$2,500, are the real "capitalists" in the case.* Whatever affects values, or interferes with the development of manufacturing and commerce, affects these persons, and not merely the individuals, firms, or corporations in whose hands the ownership is nominally vested.

* In this statement as to ownership we disregard for the moment the paid-up capital and the surplus accumulated over the required insurance reserve in stock companies, which amounts may be considered as belonging to the stockholders instead of to the policy holders. These items amounted in the aggregate to \$65,819,462 in 1895, out of a grand total amounting to \$1,139,486,627, or only 5.78 per cent of the aggregate, as will appear from a statement hereinafter presented.

Besides this sum, the accumulations represent \$111,064,158, loaned to counties, states, cities, and towns, and to the United States; and \$401,112,744, loaned upon first mortgages on real estate.

We have treated the subject of life insurance as related to wealth accumulation. In closing, we present the net results during the six years under consideration. The total assets as shown by the books of the companies have been given for each year in the table on page 6. From these amounts, drawn from the annual statements filed by the companies, certain items are deducted, including agents' debit balances, loans on personal security, bills receivable, and depreciation, the balance being termed the "total admitted assets" of the companies. Against the "total admitted assets" are charged certain "liabilities," consisting in the main of the necessary insurance reserve to cover outstanding policies, the balance between these liabilities and the "admitted assets" being the "surplus as regards the policy holders."

The condition of the companies in 1890 and 1895 is shown in the following statements:

Statement. — 1890.

MASSACHUSETTS LIFE INSURANCE COMPANIES.

Total admitted assets,		\$48,752,839
Net insurance reserve,	\$42,707,209	
Other liabilities,	487,383	
	<hr/>	<hr/>
		43,194,592
Surplus as regards policy holders,		\$5,558,247
Deduct paid-up capital (of stock companies),		25,500
		<hr/>
Accumulated surplus,		\$5,532,747
Reserves, as above,		42,707,209
		<hr/>
TOTAL ACCUMULATION,		\$48,239,956

OTHER UNITED STATES LIFE INSURANCE COMPANIES. (Doing business in Massachusetts).

Total admitted assets,		\$674,219,857
Net insurance reserve,	\$598,198,350	
Other liabilities,	6,542,077	
	<hr/>	<hr/>
	\$604,740,427	
Deduct liabilities on special deposits,	12,502,398	
	<hr/>	<hr/>
		592,238,029
Surplus as regards policy holders,		\$81,981,828
Deduct paid-up capital (of stock companies),		4,590,000
		<hr/>
Accumulated surplus,		\$77,391,828
Reserves, as above,		598,198,350
		<hr/>
TOTAL ACCUMULATION,		\$675,590,178

Statement. — 1895.

MASSACHUSETTS LIFE INSURANCE COMPANIES.

Total admitted assets,	\$68,056,187
Net insurance reserves,	\$61,338,294
Other liabilities,	716,923
	<hr/>
	62,055,217
Surplus as regards policy holders,	\$6,000,970
Deduct paid-up capital (of stock companies),	25,500
	<hr/>
Accumulated surplus,	\$5,975,470
Reserves, as above,	61,338,294
	<hr/>
TOTAL ACCUMULATION,	\$67,313,764

OTHER UNITED STATES LIFE INSURANCE COMPANIES. (Doing business in Massachusetts).

Total admitted assets,	\$1,038,554,213
Net insurance reserves,	\$904,272,585
Other liabilities,	13,371,035
	<hr/>
	\$917,643,620
Deduct liabilities on special deposits,	30,167,610
	<hr/>
	887,476,010
Surplus as regards policy holders,	\$151,078,203
Deduct paid-up capital (of stock companies),	8,190,000
	<hr/>
Accumulated surplus,	\$142,888,203
Reserves, as above,	904,272,585
	<hr/>
TOTAL ACCUMULATION,	\$1,047,160,788

In computing the net accumulation we have, of course, deducted the amount of capital originally paid in, in the stock companies, and also the amount of liabilities other than reserves. We then have the following:

Total accumulation, Massachusetts life companies, 1890, \$48,239,956; 1895, \$67,313,764. Increase, \$19,073,808; or 39.54 per cent.

Total accumulation, other United States life companies doing business in Massachusetts, 1890, \$675,590,178; 1895, \$1,047,160,788. Increase, \$371,570,610; or 55 per cent.

Aggregate accumulation, all companies, 1890, \$723,830,134; 1895, \$1,114,474,552. Increase, \$390,644,418; or 53.97 per cent.

The surplus over capital in 1895, in the stock companies, was for the Massachusetts life companies, \$678,759; and for the other United States companies doing business in the State, \$56,925,203; or, in the aggregate, \$57,603,962. If this sum is deducted from the aggregate accumulation in 1895 (i.e., \$1,114,474,552) there will remain \$1,056,-

870,590, as the aggregate accumulation exclusive of capital originally paid in, in stock companies, and the surplus over capital in such companies remaining after providing the required insurance reserve; or, in other words, this \$1,056,870,590, or 94.83 per cent of the aggregate accumulation, may be regarded as the accumulated amount belonging exclusively to the policy holders, consisting of the insurance reserve held for their benefit as required by law, in both mutual and stock companies, and the surplus over such reserve in the mutual companies.

THE LEGISLATION OF 1897 RELATING TO HOURS OF LABOR, AND TO THE EMPLOYMENT OF WOMEN AND CHILDREN.

Our summary of legislation in the United States relating to hours of labor, and to the employment of women and children, contained in Bulletin No. 3, issued July, 1897, was brought up to January 1, 1897. The following changes have taken place since that date, the record closing January 1, 1898:

In *Illinois*, children under 14 are not permitted to work for wages in mercantile establishments, offices, laundries, manufacturing establishments, factories, or workshops; nor if under 16 at a gainful occupation more than 60 hours per week; nor in hazardous or immoral employments. Certificates, in form prescribed by law, substantially the same as required by the law in Indiana and Michigan, hereafter referred to, must be kept on file by the employer before persons over the age of 14 years and under 16 can be employed. Before the passage of this Act, boys under 14 (and women) were not permitted to work in mines; children under 13 could not be legally employed in shops, factories, or manufacturing establishments unless they had received at least eight weeks' schooling during the current year, and then only when their labor was necessary for the support of aged or infirm dependent relatives; and children under 14 could not be legally employed in manufacturing establishments. The effect of the changes made by the statute of 1897 can be seen.

In *Indiana*, no person under 16 years of age and no woman under 18, employed in any manufacturing establishment, shall be required or permitted to work therein more than 60 hours in any one week, or more than 10 hours in any one day, unless for the purpose of making a shorter day on the last day of the week; nor more hours in any one week than will make an average of 10 hours per day for the whole number of days in which such employé shall have worked during the

week. No child under 14 years of age is to be employed in any manufacturing establishment, and if under 16 there shall be on file a certificate containing an affidavit by the parent or guardian relating to age and birth, or by the child when said child has no parent or guardian. Children under 15 cannot be employed in the care, custody, or management of elevators, and no person under 18 if the elevator runs at a speed of over 200 feet a minute. No child under 16 can be employed in manufacturing establishments except during the vacation of the public schools in the city or town where such child lives, who cannot read and write simple sentences in the English language. If any child seems physically unable to perform the labor at which he is employed, the factory inspector may require a certificate of physical fitness from some regular physician. These provisions are part of the first general factory law which has been enacted in Indiana, which, besides fixing the hours of labor, includes provisions as to factory inspection, machinery, ventilation, fire escapes, sweat shops, etc.

In *Minnesota*, no child under 14 years of age can be employed at any time in any factory, workshop, or mine, or in any mercantile establishment. No such child can be employed in the service of any telegraph, telephone, or public messenger company, except during the vacation of the public schools in the town where said child is employed. No child under 16 can be employed at any occupation dangerous or injurious to life, limb, health, or morals, nor at any labor of any kind outside of the family of such child's residence before six o'clock in the morning nor after seven in the evening, nor more than 10 hours in any one day, nor more than 60 hours in any one week; except that children not less than 14 years of age may be employed in mercantile establishments on Saturdays and for 10 days before Christmas until 10 o'clock in the evening, provided, however, that this permission shall not be so construed as to permit such children to work more than 10 hours in any one day nor over 60 hours in any one week. Before the passage of this law, the provision prohibiting employment outside of the family in which the child resided applied to children under 14 before seven o'clock in the morning and after six at night. The law in Minnesota requires children under 16 to attend school 12 weeks in each year, and prohibits employment in indoor occupations except during vacations whenever such child is unable to read and write in English, unless regularly in attendance upon a day or evening school. To this there was an exception, now amended by the statute of 1897, so as to provide that when the labor of any minor 14 years of age or over is necessary for the support of the family to which he belongs, or for his own support, the school authorities of the town within which he resides may in their discretion permit such child to be employed without having attended school as required by law, and also permit him to labor, although not able to read and write in the English language.

In *Michigan*, it is provided that a sworn statement in writing must be made by the parent or guardian, as to age and birth of the child, without which it is unlawful to employ such child if under the age of 16 in any manufacturing establishment. The statement may be made by the child, if said child has no parent or guardian, and must be kept on file by the employer for inspection by the factory inspector. This law relates to the certificate and does not change the age limit.

In *Missouri*, no child under the age of 14 years is to be employed in any manufacturing or mechanical establishment wherein power machinery is employed, or where the work to be done would, in the opinion of two reputable physicians in the locality where such work is to be done, be dangerous to the health of the child. It is provided that extreme poverty of the parent or person in charge of the child shall be a good defence in case of actions brought under the law. No age limitation upon the employment of children in factories previously existed in Missouri.

In *New Jersey*, employés in bakeries and confectionery establishments may not work more than 60 hours in any one week, or more than 10 hours in any one day, unless for the purpose of making a shorter day on the last day of the week; nor more hours in any one week than will average 10 per day for the whole number of days worked during the week, except that in emergencies employés may work additional time, not exceeding two hours per day.

In *Pennsylvania*, no minor, male or female, or adult woman, can be employed at labor or detained in any manufacturing establishment, mercantile industry, laundry, workshop, renovating works, or printing office for a longer period than 12 hours in any day, nor for a longer period than 60 hours in any week. The labor of children under 13 years of age is prohibited in such establishments, and children under 16 cannot be employed without certificates on file containing affidavits made by the parent or guardian of the child, or by the child if he has no parent or guardian, stating the age, date, and place of birth. Minors under 16 who cannot read and write in the English language, cannot be employed unless they have attended school during the preceding year for a period of 16 weeks. Employés in bakeries and confectionery establishments shall not be required or permitted to work more than six days in any one week, said day to commence on Sunday not before six o'clock P.M., and to terminate at the corresponding time on Saturday of the same week. No person under the age of 18 years shall be employed in any bake-house between the hours of five at night and nine in the morning. The time required on Sunday for setting the sponges for the night's work following is excepted. Eight hours out of the 24 of each day constitute a legal day's work for mechanics, workmen, and laborers in the employ of the State or any municipal corporation therein, or otherwise engaged on public works, whether employed directly by the State or municipality, or by contractors therewith.

Prior to the passage of this act, the employment of persons of either sex under 21 years of age, in cotton, woollen, silk, flax, bagging, and paper mills, was limited to 10 hours per day or 60 per week; the labor of children under 13 was prohibited in such establishments; and children under 16 could not be legally employed therein more than nine months in any one year, nor unless they had attended school at least three consecutive months in the same year. The extensions and modifications of the statute can be traced in comparison with this prior legislation.

In *South Carolina*, the hours of labor of employes of street railway companies are restricted to 12 during each or any day of 24 hours, and employers are prohibited from making contracts or agreements with their employes, or any of them, providing that they shall work for more than 12 hours during each day or any day of 24 hours. This is a new field of legislation in South Carolina, although similar statutes have been enacted in several other States.

In *South Dakota*, no child between eight and 14 years of age can be employed in any mine, factory, workshop, or mercantile establishment, or, except by his parent or guardian, in any other manner during the hours when the public schools are in session, unless the child has attended school for a period of 10 weeks during the year, as required by law. In certain cases attendance may be excused. The effect of this law is to reduce the school attendance required antecedent to employment from 12 to 10 weeks. The age limitations remain unchanged.

To sum up:

The legislation of the year 1897 as to the hours of labor and employment of women and children puts additional limitations upon the employment of children in *Illinois*; brings *Indiana* into the group of States which have legal restrictions as to hours, and as to the employment of persons under 16 and women under 18; strengthens the law relating to the employment of children in *Minnesota* and *Michigan*, and establishes legislation of this character in *Missouri*; regulates hours and employment in bakeries and confectionery manufactories in *New Jersey* and *Pennsylvania*; broadens the general law as to hours of labor and the employment of children in *Pennsylvania*; includes *South Carolina* among the States which regulate the hours of labor on street railways; and modifies the requirements respecting the schooling of children in *South Dakota*.

COURT DECISIONS.

The following decisions relative to statutes fixing hours of labor have been rendered since January 1, 1896:

In the State of *Kansas*, as in many States, there is a general provision fixing the limit of a legal day's work. The provisions of the statute limit the working day to eight hours in all public employment, whether conducted directly or by contract, except in cases of emergency.

On the 16th of June, Judge Wells, of Kansas, rendered a decision

in a case brought before him in the Court of Appeals, on writ of error from the lower court, in the case of *Billingsley v. The Board of Commissioners of Marshall County* (49 Pacific Reporter, 329.) In the lower court judgment had been rendered for the defendant. It appears that in this case Billingsley had contracted with the county to do certain clearly specified work for a certain specified sum monthly, and after the expiration of the contract, he, having received his pay thereunder, brought suit to collect of the county pay for excess of labor over eight hours per day rendered in the performance of the contract. The plaintiff in error claimed that the object of the law was, first, to shorten the hours of labor for the employed; and, second, to give the unemployed a better chance to get work. Judge Wells, in rendering an adverse decision, thereby affirming the decision of the lower court against the plaintiff, states:

It is a familiar rule that a thing may be within the letter of a statute, and yet not within the statute, because not within its spirit or intention. But in this case the claim of the plaintiff is not within the letter of the law. The law referred to makes it unlawful for any county, or any contractor therewith, to require or permit any person to work more than eight hours per day under any contract with it, except in cases of extraordinary emergency, as therein designated. In this case there was no claim of any such emergency as contemplated in the exception. We are therefore presented with this alternative: either the plaintiff in error violated the letter and spirit of the law in question, and now insists upon being paid for doing so, or that chapter does not apply to cases of this kind. Each of these positions is equally fatal to the plaintiff's claim. It is an elementary principle of law that a person cannot base a cause of action upon his own wrong

Judge Wells further says: "The writer of this is of the opinion that the law in question only applies to people who work by the day, and not to those taking contracts of a certain amount of work for so much money."

In *Utah*, there is a statute regulating the hours of employment in underground mines and in smelters and ore reduction works to eight hours a day except in cases of emergency. In Bulletin No. 3, July, 1897, we gave the decision of the Supreme Court in the case of *Holden v. Hardy* (46 Pacific Reporter, 756) sustaining the constitutionality of the act. In another case (*State v. Holden*, 46 Pacific Reporter, 1105) the Supreme Court, the question having been raised as to the constitutionality of the law, upheld its constitutionality, and affirmed the conviction of the appellant, Holden, for violation thereof. Chief Justice Zane, in rendering the opinion, says:

This case is analogous to the case of *Holden v. Hardy* (above mentioned), except that the defendant in that case was convicted of a violation of the first section of the act, in employing a workingman in underground mining more than eight hours per day, and the conviction in this one was for the employment of one William Hooley, in his concentrating mill, for the reduction of ores, more than eight hours per day. The conditions with respect to health of laborers in underground mines doubtless differ from those in which they labor in smelters and other reduction works on the surface. Unquestionably, the atmospheric and other conditions in mines and reduction works differ. Poison-

ous gases, dust, and impalpable substances arise and float in the air in stamp mills, smelters, and other works in which ores containing metals, combined with arsenic or other poisonous elements or agencies, are treated, reduced, and refined; and there can be no doubt that prolonged effort day after day, subject to such conditions and agencies, will produce morbid, noxious, and often deadly effects in the human system. * * * Twelve hours per day would be less injurious than 14, 10 than 12, and eight than 10. The legislature has named eight. Such a period was deemed reasonable.

The people of the State, in their constitution, made it mandatory upon the legislature to "pass laws to provide for the health and the safety of the employés in factories, smelters, and mines." Const. Utah, art. 16, sec. 6. We do not feel authorized to hold that the statute quoted was not designed, calculated, and adapted to promote the health of the class of men who labor in smelters and other works for the reduction and treatment of ores. Nor can we say that the law conflicts with any provision of the Constitution of the United States. Nor do we wish to be understood as intimating that the power to pass the law does not exist in the police powers of the State. The authority to pass laws calculated and adapted to the promotion of the health, safety, or comfort of the people, and to secure the good order of society, and the general welfare, undoubtedly is found in such police powers. The law in question is confined to the protection of that class of people engaged in labor in underground mines, and in smelters and other works wherein ores are reduced and refined. This law applies only to the classes subjected by their employment to the peculiar conditions and effects attending underground mining and work in smelters, and other works for the reduction and refining of ores. Therefore it is not necessary to discuss or decide whether the legislature can fix the hours of labor in other employments. Though reasonable doubts may exist as to the power of the legislature to pass a law, or as to whether the law is calculated or adapted to promote the health, safety, or comfort of the people, or to secure good order, or promote the general welfare, we must resolve them in favor of the right of that department of government. That case (*Holden v. Hardy*, referred to above) we now reaffirm as governing this one.

QUARTERLY REVIEW OF EMPLOYMENT AND EARNINGS.

OCTOBER 1897 TO JANUARY 1898.

At the beginning of the present year the Bureau collected information relating to the condition of employment and wages, as compared with the preceding October.

Our plans have in view the quarterly presentation of brief statements from the leading industrial places in the State, and it was expected that the information obtained in January would be published in the January issue of this Bulletin.

The pressure of other work upon the Department, and, especially, the preparation of an abstract of the statistics relating to the cotton industry, caused a delay in the publication of the January Bulletin, and prevented the inclusion therein of the matter to which we have referred. In order that a basis may be established for future comparisons we now give a brief summary of the information obtained.

As to employment, the reports indicated a diminution in the number of persons employed in the first week of January as compared with the first week of October; this condition of affairs not applying, however, to all the industries. In Boots and Shoes, Machines and Machinery, and in some of the minor industries, for example, Boxes, Barrels, and Kegs, and Clocks, Watches, and Jewelry, there was a slight increase in the number employed. Upon the whole, however, whatever improvement had taken place in general business conditions, during the last three months of 1897 had not enlarged employment in manufacturing industries; but, on the other hand, the number of persons employed had declined, possibly, five per cent.

In general, the conditions as to employment were paralleled by a corresponding diminution in the earnings of the employes. Slight increases in the weekly payroll for the week ending January 8, 1898, as compared with the payroll for the week ending October 9, 1897, were reported only in Clocks, Watches, and Jewelry; Cotton Goods; Machines and Machinery; and Woollen Goods. The Cotton Goods industry, as a whole, however, was much depressed, and has not since recovered. The decline in earnings for the first week in January as compared with the first week in the preceding October, notwithstanding increases in certain industries and individual factories, was, upon the face of the returns received, fully nine per cent.

Returns from retail dealers supplying groceries, provisions, clothing, etc. to persons engaged in industrial occupations, indicated a decline both in cash and credit sales for the week ending January 8, as against the week ending October 9, 1897. Upon the face of the returns, cash sales declined nearly 15 per cent and credit sales about 10 per cent. The number of credit customers, however, also declined in nearly the same ratio. At the same time, the general tendency of the retail prices of many commodities consumed by the workingman's family was upward, and in January, as compared with October, had shown considerable advance.

A large proportion of the returns received from dealers indicated a restriction of purchases, and a tendency to buy a cheaper quality of goods, in January than in October, and also that many credit purchasers were unable to pay according to agreement, and were therefore falling behind in payments; thus corroborating the returns showing diminished employment and earnings.

This brief summary indicates a general depression in the economic condition of the workingman during the closing month of 1897 and at the beginning of the present year, as compared with a date three months earlier. Part of this was due, no doubt, to seasonal depressions in certain industries and part to the general condition of business which had not recovered from the continued dulness beginning in 1893. The next period of comparison will end May 21, and the results, as against those indicated for January, will appear in the July Bulletin.

SEVENTH ANNUAL REPORT. 1876. pp. 379.

Part I.—Wage receivers. (71,339 "individual" returns.)

Part II.—Salary receivers. (9,554 "individual" returns.)

Appendix.—History of the Bureau of Statistics of Labor, and of labor legislation in Massachusetts from 1833 to 1876.

EIGHTH ANNUAL REPORT. 1877. pp. 303.

Part I.—Industrial arbitration and conciliation in England and Massachusetts.

Part II.—Co-operation in Massachusetts.

Part III.—Motive power in Massachusetts; or, the labor of the sun.

Part IV.—The afflicted classes. Blind, deaf, dumb, idiotic, and insane.

Part V.—Pauperism and crime.

Part VI.—Massachusetts manufactories: persons employed in each story, and their means of escape in case of fire.

NINTH ANNUAL REPORT. 1878. pp. 267.

Part I.—Comparative condition of manufactures and labor, 1875 and 1877.

Part II.—The education and labor of the young; the half-time system.

Part III.—The growth of Massachusetts manufactures.

Part IV.—The relative importance of private establishments and corporations in manufacturing industries.

Part V.—Conjugal condition, nativities, and ages of married women and mothers.

Part VI.—Nativities, ages, and illiteracy of farmers, farm-laborers, skilled workmen in manufactures and mechanical industries, and unskilled laborers.

TENTH ANNUAL REPORT. 1879. pp. 198.

Introduction.—Expenses of the Bureau.

The insolvency of workmen.

Weekly payments.

Labor legislation.

Foreign statistics and opinions.

School savings banks.

Bureaus of statistics.

Part I.—The unemployed in Massachusetts. June and November, 1878.

Part II.—Convict labor.

Part III.—Wages and prices, 1860, 1872, and 1878.

Part IV.—Testimony of workmen.

Part V.—The hours of labor.

Part VI.—Statistics of drunkenness and liquor selling under prohibitory and license legislation, 1874 and 1877.

ELEVENTH ANNUAL REPORT. 1880. pp. 305.

Part I.—Strikes in Massachusetts.

Part II.—Convict labor in the United States.

Part III.—Statistics of crime. 1860 to 1879.

Part IV.—Divorces in Massachusetts. 1860 to 1878.

Part V.—Social life of workmen.

TWELFTH ANNUAL REPORT. 1881. pp. 545.

Part I.—Industrial arbitration and conciliation.

Part II.—Statistics of drunkenness and liquor selling. 1870 to 1879.

Part III.—Uniform hours of labor.

Part IV.—Influence of intemperance upon crime.

THIRTEENTH ANNUAL REPORT. 1882. pp. 473.

Part I.—The Canadian French in New England.

Part II.—Citizenship.

Part III.—Fall River, Lowell, and Lawrence.

Part IV.—Wages, prices, and profits. 1860, 1872, 1878, and 1881.

FOURTEENTH ANNUAL REPORT. 1883. pp. 412.

Part I.—Employers' liability for personal injuries to their employees.

Part II.—Time and wages.

Part III.—Profits and earnings: 2,440 establishments.

Part IV.—Early factory labor in New England.

FIFTEENTH ANNUAL REPORT. 1884. pp. 484.

Part I.—The working girls of Boston.

Part II.—Comparative wages: 1883. Massachusetts and Great Britain.

Part III.—Comparative wages: 1860-1883. Massachusetts and Great Britain.

Part IV.—Comparative prices and cost of living: 1860-1883. Massachusetts and Great Britain.

SIXTEENTH ANNUAL REPORT. 1885. pp. 551.

Part I.—Pullman.

Part II.—Sunday labor.

Part III.—Comparative wages and prices: 1860-1883. Massachusetts and Great Britain.

Part IV.—Historical review of wages and prices: 1752-1860.

Part V.—Health statistics of female college graduates.

SEVENTEENTH ANNUAL REPORT. 1886. pp. 411.

Memorial.—Henry Kenble Oliver.

Part I.—Co-operative distribution in Great Britain.

Part II.—Profit sharing.

Part III.—Food consumption. Quantities, costs, and nutrients of food-materials.

Part IV.—Art in industry.

EIGHTEENTH ANNUAL REPORT. 1887. pp. 305.

The unemployed.

NINETEENTH ANNUAL REPORT. 1888. pp. 239.

Part I.—Strikes and lockouts.

Part II.—Citizens and aliens.

TWENTIETH ANNUAL REPORT. 1889. pp. 684.

Part I.—Relation of wages to the cost of production.

Part II.—Markets, transportation, imports, exports, and competition. *Postage 6 cents.*

Part III.—Condition of employes, *Postage 3 cents.*

Part IV.—The growth of manufactures, *Postage 5 cents.*

Part V.—Classified weekly wages, *Postage 3 cents.*

Part VI.—Daily working time, *Postage 4 cents.*

Part VII.—Women in industry.

Part VIII.—Index to reports: 1870-1889. Twenty years, *Postage 3 cents.*

TWENTY-FIRST ANNUAL REPORT. 1890. pp. 661.

Part I.—Labor laws of Massachusetts.

Part II.—Population of Massachusetts. 1890. From the Eleventh United States Census.

Part III.—Abandoned farms in Massachusetts.

Part IV.—Net profits in manufacturing industries.

TWENTY-SECOND ANNUAL REPORT. 1891. pp. 606. *Postage 18 cents.*

A Tenement House Census of Boston.

Section I.—Tenements, rooms, and rents.

TWENTY-THIRD ANNUAL REPORT. 1892. pp. 479. *Postage 15 cents.*

A Tenement House Census of Boston.

Part I. Section II.—Sanitary condition of tenements.

Part II. Section III.—Place of birth, occupations, etc., of residents in tenement houses.

TWENTY-FOURTH ANNUAL REPORT. 1893. pp. 326. *Postage 12 cents.*

Part I.—Unemployment.

Part II.—Labor chronology—1893, *Postage 3 cents.*

TWENTY-FIFTH ANNUAL REPORT. 1894. pp. 356. *Postage 13 cents.*

Part I.—Compensation in certain occupations of graduates of colleges for women, *Postage 3 cents.*

Part II.—The distribution of wealth—probates, *Postage 8 cents.*

Part III.—Labor chronology—1894, *Postage 3 cents.*

TWENTY-SIXTH ANNUAL REPORT. 1895. pp. 767. *Postage 23 cents.*

Part I.—Relation of the liquor traffic to pauperism, crime, and insanity.

Part II.—Graded weekly wages, *Postage 9 cents.*

Part III.—Labor chronology—1895, *Postage 3 cents.*

TWENTY-SEVENTH ANNUAL REPORT. 1896. pp. 370. *Postage 13 cents.*

Part I.—Social and industrial changes in the county of Barnstable, *Postage 5 cents.*

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OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 8.

OCTOBER.

1898.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDGIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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MASSACHUSETTS LABOR BULLETIN.

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HOURS OF LABOR IN DOMESTIC SERVICE.

The Committee on Domestic Reform of the Women's Educational and Industrial Union, since its organization in 1896, has conducted original investigations respecting the conditions under which the workers in domestic service perform their labor. One of the specific objects which the Committee has had in view is the increase of the supply of domestic workers, of whom there is generally a limited number in proportion to the demand, by drawing from the surplus that frequently exists in the overcrowded ranks of industrial wage earners. Incidental to this purpose, the Committee found it necessary to study the present domestic situation for the purpose of bringing to light its defects and inharmonies in order that needed and practical reforms might be suggested, thus possibly removing some of the difficulties which stand in the way of the transference of labor from industrial to domestic channels.

The present article deals with the results of an investigation conducted by the Committee respecting the hours of labor in domestic service, the returns obtained having been submitted to the Bureau for tabulation.

The importance of the subject is sufficient warrant for its treatment here. The woman who is employed in the store or factory usually works during a fixed number of hours per day, running from a regular hour in the morning to a definite hour in the afternoon, with possibly some additional evening service in certain cases if in mercantile employment, and generally with an intermission of half an hour or an hour for lunch. Employment is generally uniform during every day of the week, except Sunday, with, however, an increasing tendency towards a half-holiday on Saturday in summer. The tendency is also towards an eight-hour day in factory employments, in which the hours of labor are already limited by law to 58 per week for women and minors. In mercantile employment while 10 hours, or in some cases less, may be the rule in the larger establishments in the central business district of Boston, evening service not being rendered except during the Christmas holidays; nevertheless, much longer service is required in the smaller establishments outside the central business district, in the suburbs, and in

cities other than Boston, even running as high as 75 hours per week in certain kinds of shops, the average possibly being as high as $11\frac{1}{2}$ or 12 hours per day, including Saturday night service and allowing for an evening or two off during the week.

How do the hours of labor of the domestic worker compare with these? It is, of course, generally understood that the daily period of service is much longer. In fact, the nature of domestic employment makes it difficult to fix definite limits to each and every day's work. But, on the other hand, although the nominal day's work may be longer, it is generally held that the domestic worker is not so continuously employed, and that the hours of rest between the hours of beginning and closing each day are really a substantial offset to the longer period during which the domestic worker is on duty, as compared with the industrial worker. How many hours of rest does the domestic worker actually have during the 24 hours of each day? To this question, as to the other, there is usually no definite reply.

The returns obtained by the Committee, however, throw considerable light on both these questions. In all, the number of returns received cover 184 different families in which 289 persons were em-

Classified Distribution of Daily Time: Averages.†

	CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	FIRST WEEK			
			Busy	Call	Free	Rest
1	Chambermaids,	1	11.34	-	3.17	9.09
2	\$4.62,	1	11.34	-	3.17	9.09
3	Chambermaids and laundresses,	6	9.33	1.46	3.56	8.45
4	\$4.00,	3	9.03	1.39	4.21	8.57
5	4.50,	3	10.03	1.54	3.31	8.32
6	Chambermaids and seamstresses,	3	10.21	1.30	3.15	8.54
7	\$4.00,	1	9.26	1.04	5.04	8.26
8	4.50,	2	10.49	1.43	2.20	9.08
9	Cooks,	47	10.54	1.25	3.26	8.15
10	\$3.50,	2	11.19	1.09	3.26	8.06
11	4.00,	13	10.49	1.34	3.16	8.21
12	4.50,	9	10.31	1.29	3.38	8.22
13	5.00,	18	11.05	1.34	3.14	8.07
14	6.00,	4	11.30	0.43	3.40	8.07
15	6.46,	1	8.43	-	6.21	8.56
16	Cooks and laundresses,	2	9.32	3.06	3.09	8.13
17	\$4.00,	1	9.17	3.02	3.41	8.00
18	5.00,	1	9.47	3.11	2.36	8.26
19	General housework,	127	10.23	1.33	3.47	8.17
20	\$2.50,	3	10.29	1.14	4.19	7.58
21	2.75,	1	11.24	1.21	3.41	7.34
22	3.00,	19	9.50	1.33	4.18	8.19
23	3.25,	1	10.26	1.51	3.26	8.17
24	3.50,	49	10.25	1.36	3.46	8.13

* The important investigations of Prof. Lucy M. Salmon, of Vassar College, cover this among other features of the problem of domestic service, and should not be overlooked.

† These, and similar averages afterward presented, are obtained by dividing the full time for the week by the number of days.

ployed, individual schedules being furnished for 245 of these. Although the number is comparatively limited, the importance of the returns is not dependent entirely upon it. They cover not only different kinds of service, but different kinds of families, and may be considered entirely representative of the general conditions obtaining in Boston and vicinity. In 118 families one servant only was employed; 44 families employed two; 10 families, three; eight families, four; three families, five; and one family, six; the different proportions which the number of families in each class bears to the total number thus roughly indicating the proportions obtaining in the community as a whole, the number of families having but a single servant being largely in the majority. The returns cover the facts for two different weeks.

THE SUBDIVISION OF DAILY TIME.

The following table presents in detail the average number of hours and minutes per day during which the employés of each class were either busy or subject to call, with the average number of hours and minutes included under the heads of "free time" and "rest." In this table the employés in each class are grouped according to the weekly wages received by them.

*Classified Distribution of Daily Time: Averages.**

SECOND WEEK				INCREASE (+), OR DECREASE (-), OF AVERAGE NUMBER OF HOURS AND MINUTES PER DAY FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
10.17	-	4.34	9.09	-1.17	-	+1.17	=	1
10.17	-	4.34	9.09	-1.17	-	+1.17	=	2
9.18	2.04	3.58	8.40	-0.15	+0.18	+0.02	-0.05	3
8.31	1.54	4.36	8.59	-0.32	+0.15	+0.15	+0.02	4
10.04	2.15	3.20	8.21	+0.01	+0.21	-0.11	-0.11	5
10.11	1.34	3.24	8.51	-0.10	+0.04	+0.09	-0.03	6
10.00	1.51	3.43	8.26	+0.34	+0.47	-1.21	=	7
10.16	1.26	3.15	9.03	-0.33	-0.17	+0.55	-0.05	8
10.51	1.25	3.31	8.13	-0.03	=	+0.05	-0.02	9
11.56	1.26	2.32	8.06	+0.37	+0.17	-0.54	=	10
10.58	1.33	3.03	8.26	+0.09	-0.01	-0.13	+0.05	11
10.11	1.37	4.01	8.11	-0.20	+0.08	+0.23	-0.11	12
10.55	1.29	3.32	8.04	-0.10	-0.05	+0.18	-0.03	13
11.12	0.43	3.57	8.08	-0.18	=	+0.17	+0.01	14
10.43	-	4.39	8.38	+2.00	-	-1.42	-0.18	15
9.33	2.39	3.32	8.16	+0.01	-0.27	+0.23	+0.03	16
9.17	3.02	3.41	8.00	=	=	=	=	17
9.49	2.15	3.24	8.32	+0.02	-0.56	+0.48	+0.06	18
10.21	1.32	3.53	8.14	-0.02	-0.01	+0.06	-0.03	19
10.26	1.23	4.09	8.02	-0.03	+0.09	-0.10	+0.04	20
11.28	1.24	3.45	7.23	+0.04	+0.03	+0.04	-0.11	21
9.47	1.40	4.20	8.13	-0.03	+0.07	+0.02	-0.06	22
10.13	1.26	4.04	8.17	-0.13	-0.25	+0.38	=	23
10.25	1.31	3.53	8.11	=	-0.05	+0.07	-0.02	24

* These, and similar averages afterward presented, are obtained by dividing the full time for the week by the number of days.

Classified Distribution of Daily Time: Averages — Continued.*

	CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	FIRST WEEK			
			Busy	Call	Free	Rest
	General housework — Con.					
1	\$3.75,	1	9.30	1.39	4.21	8.30
2	4.00,	46	10.30	1.35	3.38	8.17
3	4.50,	4	10.39	1.24	3.01	8.56
4	5.00,	3	10.47	1.01	3.41	8.31
5	Laundresses,	1	8.26	—	4.47	10.47
6	\$4.62,	1	8.26	—	4.47	10.47
7	Nursery governesses,	2	11.10	2.02	2.51	7.57
8	\$5.00,	2	11.10	2.02	2.51	7.57
9	Nursery maids,	7	11.04	1.53	2.55	8.08
10	\$2.00,	1	9.51	2.36	3.32	8.01
11	2.50,	3	11.34	1.17	3.34	7.35
12	3.00,	1	11.26	2.30	1.26	8.38
13	3.50,	1	10.09	2.34	2.47	8.30
14	4.00,	1	11.21	1.43	1.56	9.00
15	Parlor maids,	7	10.18	2.22	2.23	8.52
16	\$4.00,	2	8.39	3.59	2.42	8.40
17	4.30,	1	12.47	0.26	2.09	8.38
18	4.50,	2	9.28	2.28	2.45	9.19
19	5.00,	2	11.32	1.36	2.06	8.46
20	Seamstresses,	1	10.26	2.21	2.00	9.13
21	\$4.00,	1	10.26	2.21	2.00	9.13
22	Seamstresses and ladies' maids,	1	10.53	—	4.33	8.34
23	\$4.00,	1	10.53	—	4.33	8.34
24	Seamstresses and second girls,	1	10.49	1.21	3.15	8.35
25	\$2.50,	1	10.49	1.21	3.15	8.35
26	Second girls,	34	10.26	2.22	2.47	8.25
27	\$3.00,	5	10.53	2.16	2.47	8.04
28	3.25,	1	10.49	3.13	1.51	8.07
29	3.50,	5	10.15	3.06	1.54	8.45
30	3.92,	1	10.17	1.43	3.17	8.43
31	4.00,	16	10.23	2.05	2.59	8.33
32	4.50,	4	10.49	2.16	2.19	8.36
33	5.00,	2	9.11	3.17	4.36	6.56
34	Waitresses,	5	10.13	1.49	3.00	8.58
35	\$4.00,	1	11.34	1.00	2.17	9.09
36	4.15,	1	9.13	—	5.39	9.08
37	4.50,	2	9.55	2.54	2.08	9.03
38	5.77,	1	10.26	2.17	2.47	8.30

RECAPITULATION.

	CLASSIFICATION OF SERVICE.	Number Employed	FIRST WEEK			
			Busy	Call	Free	Rest
1	Chambermaids,	1	11.34	—	3.17	9.09
2	Chambermaids and laundresses,	6	9.33	1.46	3.56	8.45
3	Chambermaids and seamstresses,	3	10.21	1.30	3.15	8.54
4	Cooks,	47	10.54	1.25	3.26	8.16
5	Cooks and laundresses,	2	9.32	3.06	3.09	8.13

* See foot-note, page 2, ante.

HOURS OF LABOR IN DOMESTIC SERVICE.

5

Classified Distribution of Daily Time: Averages—Continued.*

SECOND WEEK				INCREASE (+), OR DECREASE (—), OF AVERAGE NUMBER OF HOURS AND MINUTES PER DAY FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
9.30	1.39	4.21	8.30	=	=	=	=	1
10.28	1.33	3.42	8.17	—0.02	—0.02	+0.04	=	2
10.53	1.18	2.56	8.53	+0.14	—0.06	—0.05	—0.03	3
9.56	0.55	4.43	8.26	—0.51	—0.06	+1.02	—0.05	4
6.00	—	6.26	11.34	—2.26	—	+1.39	+0.47	5
6.00	—	6.26	11.34	—2.26	—	+1.39	+0.47	6
10.59	1.26	3.15	8.20	—0.11	—0.36	+0.24	+0.23	7
10.59	1.26	3.15	8.20	—0.11	—0.36	+0.24	+0.23	8
10.43	1.49	3.14	8.14	—0.21	—0.04	+0.19	+0.06	9
9.51	2.36	3.32	8.01	=	=	=	=	10
10.54	0.56	4.19	7.51	—0.40	—0.21	+0.45	+0.16	11
11.26	3.90	1.00	8.34	=	+0.30	—0.26	—0.04	12
10.26	2.34	2.30	8.30	+0.17	=	—0.17	=	13
10.39	1.43	2.39	8.59	—0.42	=	+0.43	—0.01	14
9.58	2.20	2.52	8.50	—0.20	—0.02	+0.24	—0.02	15
8.40	3.51	2.53	8.36	+0.01	—0.08	+0.11	—0.04	16
11.13	0.26	3.47	8.34	—1.34	=	+1.38	—0.04	17
9.17	2.28	3.00	9.15	—0.11	=	+0.15	—0.04	18
11.19	1.39	2.17	8.45	—0.13	+0.03	+0.11	—0.01	19
10.26	1.43	2.43	9.08	=	—0.38	+0.43	—0.05	20
10.26	1.43	2.43	9.08	=	—0.38	+0.43	—0.05	21
10.43	—	4.43	8.34	—0.10	—	+0.10	=	22
10.43	—	4.43	8.34	—0.10	—	+0.10	=	23
9.34	1.30	4.21	8.35	—1.15	+0.09	+1.06	=	24
9.34	1.30	4.21	8.35	—1.15	+0.09	+1.06	=	25
10.32	2.15	2.44	8.29	+0.06	—0.07	—0.03	+0.04	26
10.53	2.04	2.56	8.07	=	—0.12	+0.09	+0.03	27
10.36	2.15	3.06	8.03	—0.13	—0.58	+1.15	—0.04	28
9.57	2.24	2.49	8.50	—0.18	—0.42	+0.55	+0.05	29
11.47	2.09	1.21	8.43	+1.30	+0.26	—1.56	=	30
10.41	2.09	2.31	8.39	+0.18	+0.04	—0.28	+0.06	31
10.31	2.14	2.37	8.38	—0.18	—0.02	+0.18	+0.02	32
9.11	3.17	4.36	6.56	=	=	=	=	33
10.06	1.38	3.15	9.01	—0.07	—0.11	+0.15	+0.03	34
10.43	1.13	2.56	9.08	—0.51	+0.13	+0.39	—0.01	35
10.21	—	4.30	9.09	+1.08	—	—1.09	+0.01	36
9.49	2.19	2.41	9.11	—0.06	—0.35	+0.33	+0.08	37
9.47	2.17	3.26	8.30	—0.39	=	+0.39	=	38

RECAPITULATION.

SECOND WEEK				INCREASE (+), OR DECREASE (—), OF AVERAGE NUMBER OF HOURS AND MINUTES PER DAY FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
10.17	—	4.34	9.09	—1.17	—	+1.17	=	1
9.18	2.04	3.58	8.40	—0.15	+0.18	+0.02	—0.05	2
10.11	1.34	3.24	8.51	—0.10	+0.04	+0.09	—0.03	3
10.51	1.25	3.31	8.13	—0.03	=	+0.05	—0.02	4
9.33	2.39	3.32	8.16	+0.01	—0.27	+0.23	+0.03	5

* See foot-note, page 2, ante.

*Classified Distribution of Daily Time: Averages * — Concluded.*

RECAPITULATION — Concluded.

	CLASSIFICATION OF SERVICE.	Number Employed	FIRST WEEK			
			Busy	Call	Free	Rest
1	General housework,	127	10.23	1.33	3.47	8.17
2	Laundresses,	1	8.26	—	4.47	10.47
3	Nursery governesses,	2	11.10	2.02	2.51	7.57
4	Nursery maids,	7	11.04	1.53	2.55	8.08
5	Parlor maids,	7	10.18	2.22	2.28	8.52
6	Seamstresses,	1	10.26	2.21	2.00	9.13
7	Seamstresses and ladies' maids,	1	10.53	—	4.33	8.34
8	Seamstresses and second girls,	1	10.49	1.21	3.15	8.35
9	Second girls,	34	10.26	2.22	2.47	8.25
10	Waitresses,	5	10.13	1.49	3.00	8.58
11	ALL BRANCHES OF DOMESTIC SERVICE,	245	10.29	1.41	3.29	8.21

* See foot-note, page 2, *ante*.

The 245 employ  s covered by this table include one chambermaid, wages \$4.62 per week; six chambermaids and laundresses, three of whom received \$4.00 and three \$4.50 per week; three chambermaids and seamstresses, one receiving \$4.00 and two \$4.50 per week; 47 cooks, of whom two were paid \$3.50; 13, \$4.00; nine, \$4.50; 18, \$5.00; four, \$6.00; and one, \$6.46 per week; two cooks and laundresses, one at \$4.00 and one at \$5.00 per week; 127 employ  s engaged in general housework, the largest single group, including three at \$2.50; one at \$2.75; 19 at \$3.00; one at \$3.25; 49 at \$3.50; one at \$3.75; 46 at \$4.00; four at \$4.50; and three at \$5.00 per week.

There are also included in the table one laundress at \$4.62 per week; two nursery governesses at \$5.00; seven nursery maids, of whom one receives \$2.00; three, \$2.50; one, \$3.00; one, \$3.50; and one \$4.00 per week; seven parlor maids, two at \$4.00; one at \$4.30; two at \$4.50, and two at \$5.00 per week; one seamstress at \$4.00; one seamstress and ladies' maid at \$4.00; one seamstress and second girl at \$2.50; 34 employ  s classed as second girls, of whom five received \$3.00; one, \$3.25; five, \$3.50; one, \$3.92; 16, \$4.00; four, \$4.50; and two, \$5.00, weekly; and five waitresses, one at \$4.00; one at \$4.15; two at \$4.50; and one at \$5.77 per week.

It will be seen from this summary that the returns embody all the important branches of household service, and the representative character of the schedules is further shown by the comparatively wide range of wages in the different groups, each wage class receiving its proportionate attention.

The conditions as to hours of service may be best seen, perhaps, from the recapitulation, in which a single line is devoted to each different class among the employ  s, the final line presenting an average for the entire number.

With respect to the 245 employ  s, as a whole, the returns for the

Classified Distribution of Daily Time: Averages — Concluded.*

RECAPITULATION—Concluded.

SECOND WEEK				INCREASE (+), OR DECREASE (—), OF AVERAGE NUMBER OF HOURS AND MINUTES PER DAY FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
10.21	1.32	3.53	8.14	—0.02	—0.01	+0.06	—0.03	1
6.00	—	6.26	11.34	—2.26	—	+1.39	+0.47	2
10.59	1.26	3.15	8.20	—0.11	—0.36	+0.24	+0.23	3
10.43	1.49	3.14	8.14	—0.21	—0.04	+0.19	+0.06	4
9.58	2.20	2.52	8.50	—0.20	—0.02	+0.24	—0.02	5
10.26	1.43	2.43	9.08	=	—0.38	+0.43	—0.05	6
10.43	—	4.43	8.24	—0.10	—	+0.10	=	7
9.34	1.30	4.21	8.35	—1.15	+0.09	+1.06	=	8
10.32	2.15	2.44	8.29	+0.06	—0.07	—0.03	+0.04	9
10.06	1.38	3.15	9.01	—0.07	—0.11	+0.15	+0.03	10
10.25	1.39	3.36	8.20	—0.04	—0.02	+0.07	—0.01	11

* See foot-note, page 2, *ante*.

first week show the average daily busy time to be 10 hours and 29 minutes, although in addition the average length of time within which the employé was subject to call, that is not free, was one hour and 41 minutes.

The average length of free time was three hours 29 minutes, and the time of rest averaged eight hours 21 minutes per day. The average busy time for the second week was 10 hours 25 minutes; the call time averaging one hour 39 minutes; and the free time, three hours 36 minutes; while the time devoted to rest was upon the average eight hours 20 minutes. On the whole, the decrease in the average busy time in the second week as compared with the first was four minutes. The call time decreased two minutes; the free time increased seven minutes; and the time of rest decreased one minute, on the average.

In the different groups some interesting variations appear. In each week the hours actually busy for the six employés classed as chamber-maids and laundresses, the two classed as cooks and laundresses, and for the single employé who did laundry work only, are materially less than for any of the others. Plainly, the diminution in the hours of busy time is due to the fact that the employés in these three groups are engaged in service which does not require the same continuous application as is demanded in other branches. In each of the other cases, excepting the single employé engaged in chamber work, the two nursery governesses, and seven nursery maids, who during the first week were busy more than 11 hours per day, and also excepting the seven parlor maids and one seamstress and second girl, who during the second week were busy less than 10 hours per day, the busy time is between 10 and 11 hours in each week.

So far as the returns indicate, therefore, it may be said that this is the mean daily time during which the employé is actively employed, varying from slightly in excess of 10 hours to nearly 11, according to

the kind of work and the exigencies of particular seasons, which make slight variations from week to week. The main body of the table shows variations from this mean in each branch of the service. For example, although the average busy time for the 47 cooks was 10 hours 54 minutes in the first week, and 10 hours 51 minutes in the second week, there were two cooks included in the group whose average busy time was 11 hours 19 minutes, and 11 hours 56 minutes; 18 cooks for whom the averages were 11 hours five minutes, and 10 hours 55 minutes; four cooks averaging 11 hours 30 minutes, and 11 hours 12 minutes: and one, who happened to receive the highest pay, was required to work only eight hours 43 minutes per day during the first week, the busy time being increased to 10 hours 43 minutes in the second week. On the whole, the cooks, nursery maids, and parlor maids show the widest variations from the mean.

In the following table the call time has been added to the busy time for each class, and presented as the aggregate length of the day's work for each of the weeks under consideration:

CLASSIFICATION OF SERVICE.	LENGTH OF DAY'S WORK IN HOURS AND MINUTES	
	First Week	Second Week
Chambermaids,	11.34	10.17
Chambermaids and laundresses,	11.19	11.22
Chambermaids and seamstresses,	11.51	11.45
Cooks,	12.19	12.16
Cooks and laundresses,	12.38	12.12
General housework,	11.56	11.53
Laundresses,	8.26	6.00
Nursery governesses,	13.12	12.25
Nursery maids,	12.57	12.32
Parlor maids,	12.40	12.18
Seamstresses,	12.47	12.09
Seamstresses and ladies' maids,	10.53	10.43
Seamstresses and second girls,	12.10	11.04
Second girls,	12.48	12.47
Waitresses,	12.02	11.44
ALL BRANCHES OF DOMESTIC SERVICE,	12.10	12.04

By thus combining the call time and the busy time, we arrive at the real length of the day's service, since, although not actually busy,

Classified Distribution of Weekly Time.

CLASSIFICATION OF SERVICE AND WAGES.			Number Employed	FIRST WEEK			
				Busy	Call	Free	Rest
1	Chambermaids,		1	81.00	-	23.00	64.00
2	\$4.62,		1	81.00	-	23.00	64.00
3	Chambermaids and laundresses,		6	66.50	12.22	27.33	61.15
4	\$4.00,		3	63.20	11.30	30.25	62.45
5	4.50,		3	70.20	13.15	24.40	59.45
6	Chambermaids and seamstresses,		3	72.27	10.30	22.45	62.18
7	\$4.00,		1	66.00	7.30	35.30	59.00
8	4.50,		2	75.45	12.00	16.23	63.52

the employ  s are not free during these hours. The average, for all the branches of domestic service included in the table, is for the first week 12 hours 10 minutes, and for the second week 12 hours four minutes. The average combined busy and call time for the nursery governesses during the first week was 13 hours 12 minutes, declining to 12 hours 25 minutes in the second week; while the nursery maids performed an average daily service aggregating 12 hours 57 minutes during the first week, and 12 hours 32 minutes during the second week. When the busy and call time is united in this way, the length of the day's work for the cooks is slightly above the average for both weeks, being 12 hours 19 minutes for the first week, and 12 hours 16 minutes for the second week. It will be seen, of course, that out of the aggregate length of the day's service the cooks are busy for a larger proportion of the time than the nursery governesses and nursery maids, although the daily period of service for the nursery employ  s is greater than that for the cooks. The average length of the day's work, including busy and call time, is greater than the general average for the following classes of employ  s, the figures for each of the weeks being taken into account: Cooks, cooks and laundresses, nursery governesses, nursery maids, parlor maids, seamstresses, and second girls; on the other hand, the average length of the day's work is considerably less than the general average for the laundresses, and slightly less for the chambermaids and laundresses, chambermaids and seamstresses, general housework, seamstresses and ladies' maids, and waitresses. In this comparison no branches have been mentioned in which the variation, either up or down, did not appear in both of the weeks under consideration.

THE SUBDIVISION OF TIME FOR THE WEEK.

In computing the average daily time shown in the preceding tables, the changes from the normal on account of off time, either during the week or on Sunday, have been disregarded. To show the average full time for the week the following table is introduced, the classification of employ  s, both according to the nature of service and according to the different wages paid, being the same as that in the preceding tables.

Classified Distribution of Weekly Time.

SECOND WEEK				INCREASE (+), OR DECREASE (—), OF AVERAGE NUMBER OF HOURS AND MINUTES FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
72.00	—	32.00	64.00	—9.00	—	+9.00	=	1
72.00	—	32.00	64.00	—9.00	—	+9.00	=	2
65.02	14.33	27.45	60.40	—1.48	+2.11	+0.12	—0.35	3
59.35	13.20	32.10	62.55	—3.45	+1.50	+1.45	+0.10	4
70.30	15.45	23.20	58.25	+0.10	+2.30	—1.20	—1.20	5
71.15	11.00	23.50	61.55	—1.12	+0.30	+1.05	—0.23	6
70.00	13.00	26.00	59.00	+1.00	+5.30	—9.30	=	7
71.53	10.00	22.45	63.22	—3.52	—2.00	+6.22	—0.30	8

Classified Distribution of Weekly Time—Continued.

	CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	FIRST WEEK			
			Busy	Call	Free	Rest
1	Cooks,	47	76.17	10.00	24.01	57.42
2	\$3.50,	2	79.15	8.00	24.00	56.45
3	4.00,	13	75.43	10.59	22.53	58.25
4	4.50,	9	73.38	10.22	25.27	58.33
5	5.00,	18	77.37	10.57	22.38	56.48
6	6.00,	4	80.30	5.00	25.38	56.52
7	6.46,	1	61.00	-	44.30	62.30
8	Cooks and laundresses,	2	66.45	21.45	22.00	57.30
9	\$4.00,	1	65.00	21.15	25.45	56.00
10	5.00,	1	68.30	22.15	18.15	59.00
11	General housework,	127	72.39	10.56	26.30	57.55
12	\$2.50,	3	73.25	8.40	30.10	55.45
13	2.75,	1	79.45	9.30	25.45	53.00
14	3.00,	19	68.51	10.54	30.06	58.09
15	3.25,	1	73.00	13.00	24.00	58.00
16	3.50,	49	72.52	11.15	26.23	57.30
17	3.75,	1	66.30	11.30	30.30	59.30
18	4.00,	46	73.33	11.05	25.24	57.58
19	4.50,	4	74.30	9.45	21.08	62.37
20	5.00,	3	75.30	7.05	25.45	59.40
21	Laundresses,	1	59.00	-	33.30	75.30
22	\$4.62,	1	59.00	-	33.30	75.30
23	Nursery governesses,	2	78.08	14.15	20.00	55.37
24	\$5.00,	2	78.08	14.15	20.00	55.37
25	Nursery maids,	7	77.27	13.15	20.24	56.54
26	\$2.00,	1	69.00	18.15	24.45	56.00
27	2.50,	3	80.55	9.00	25.00	53.05
28	3.00,	1	80.00	17.30	10.00	60.30
29	3.50,	1	71.00	18.00	19.30	59.30
30	4.00,	1	79.30	12.00	13.30	63.00
31	Parlor maids,	7	72.04	16.32	17.15	62.09
32	\$4.00,	2	60.30	27.53	18.53	60.44
33	4.30,	1	89.30	3.00	15.00	60.30
34	4.50,	2	66.15	17.15	19.15	65.15
35	5.00,	2	80.45	11.15	14.45	61.15
36	Seamstresses,	1	73.00	16.30	14.00	64.30
37	\$4.00,	1	73.00	16.30	14.00	64.30
38	Seamstresses and ladies' maids,	1	76.10	-	31.50	60.00
39	\$4.00,	1	76.10	-	31.50	60.00
40	Seamstresses and second girls,	1	75.45	9.30	22.45	60.00
41	\$2.50,	1	75.45	9.30	22.45	60.00
42	Second girls,	34	72.58	16.36	19.30	58.56
43	\$3.00,	5	76.12	15.54	19.30	56.24
44	3.25,	1	75.45	22.30	13.00	56.45
45	3.50,	5	71.45	21.39	13.15	61.21
46	3.92,	1	72.00	12.00	23.00	61.00
47	4.00,	16	72.39	14.33	20.52	59.56
48	4.50,	4	75.41	15.49	16.15	60.15
49	5.00,	2	64.15	23.00	32.15	48.30
50	Waitresses,	5	71.27	12.42	20.57	62.54
51	\$4.00,	1	81.00	7.00	16.00	64.00
52	4.15,	1	64.30	-	39.30	64.00
53	4.50,	2	69.23	20.15	14.53	63.29
54	5.77,	1	73.00	16.00	19.30	59.30

Classified Distribution of Weekly Time—Continued.

SECOND WEEK				INCREASE (+), OR DECREASE (—), OF AVERAGE NUMBER OF HOURS AND MINUTES FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
76.00	10.01	24.33	57.26	—0.17	+0.01	+0.32	—0.16	1
83.30	10.00	17.45	56.45	+4.15	+2.00	—6.15	=	2
76.48	10.53	21.22	58.57	+1.05	—0.06	—1.31	+0.32	3
71.16	11.17	28.07	57.20	—2.22	+0.55	+2.40	—1.13	4
76.28	10.25	24.42	56.25	—1.09	—0.32	+2.04	—0.23	5
78.26	5.00	27.41	56.53	—2.04	=	+2.03	+0.01	6
75.30	-	32.30	60.30	+14.00	-	—12.00	—2.00	7
66.52	18.30	24.45	57.53	+0.07	—3.15	+2.45	+0.23	8
65.00	21.15	25.45	56.00	=	=	=	=	9
68.45	15.45	23.45	59.45	+0.15	—6.30	+5.30	+0.45	10
72.25	10.41	27.12	57.42	—0.14	—0.15	+0.42	—0.13	11
73.00	9.40	29.00	56.20	—0.25	+1.00	—1.10	+0.35	12
80.15	9.45	26.15	51.45	+0.30	+0.15	+0.30	—1.15	13
68.32	11.39	30.19	57.30	—0.19	+0.45	+0.13	—0.39	14
71.30	10.00	28.30	58.00	—1.30	—3.00	+4.30	=	15
72.58	10.36	27.11	57.15	+0.06	—0.39	+0.48	—0.15	16
66.30	11.30	30.30	59.30	=	=	=	=	17
73.15	10.51	25.56	57.58	—0.18	—0.14	+0.32	=	18
76.11	9.08	20.30	62.11	+1.41	—0.27	—0.38	—0.26	19
69.30	6.25	33.00	59.05	—6.00	—0.40	+7.15	—0.35	20
42.00	-	45.00	81.00	—17.00	-	+11.30	+5.30	21
42.00	-	45.00	81.00	—17.00	-	+11.30	+5.30	22
76.53	10.00	22.45	58.22	—1.15	—4.15	+2.45	+2.45	23
76.53	10.00	22.45	58.22	—1.15	—4.15	+2.45	+2.45	24
75.04	12.41	22.36	57.39	—2.23	—0.34	+2.12	+0.45	25
69.00	18.15	24.45	56.00	=	=	=	=	26
76.20	6.30	30.10	55.00	—4.35	—2.30	+5.10	+1.55	27
80.00	21.00	7.00	60.00	=	+3.30	—3.00	—0.30	28
73.00	18.00	17.30	59.30	+2.00	=	—2.00	=	29
74.30	12.00	18.30	63.00	—5.00	=	+5.00	=	30
69.45	16.21	20.07	61.47	—2.19	—0.11	+2.52	—0.22	31
60.35	27.00	20.08	60.14	+0.08	—0.53	+1.15	—0.30	32
78.30	3.00	26.30	60.00	—11.00	=	+11.30	—0.30	33
65.00	17.15	21.00	64.45	—1.15	=	+1.45	—0.30	34
79.15	11.30	16.00	61.15	—1.30	+0.15	+1.15	=	35
73.00	12.00	19.00	64.00	=	—4.30	+5.00	—0.30	36
73.00	12.00	19.00	64.00	=	—4.30	+5.00	—0.30	37
75.00	-	33.00	60.00	—1.10	-	+1.10	=	38
75.00	-	33.00	60.00	—1.10	-	+1.10	=	39
67.00	10.30	30.30	60.00	—8.45	+1.00	+7.45	=	40
67.00	10.30	30.30	60.00	—8.45	+1.00	+7.45	=	41
73.41	15.46	19.10	59.23	+0.43	—0.50	—0.20	+0.27	42
76.12	14.27	20.33	56.48	=	—1.27	+1.03	+0.24	43
74.15	15.45	21.45	56.15	—1.30	—6.45	+8.45	—0.30	44
69.42	16.48	19.45	61.45	—2.03	—4.51	+6.30	+0.24	45
82.30	15.00	9.30	61.00	+10.30	+3.00	—13.30	=	46
74.45	15.02	17.35	60.38	+2.06	+0.29	—3.17	+0.42	47
73.34	15.38	18.19	60.29	—2.07	—0.11	+2.04	+0.14	48
64.15	23.00	32.15	48.30	=	=	=	=	49
70.42	11.24	22.42	63.12	—0.45	—1.18	+1.45	+0.18	50
75.00	8.30	20.30	64.00	—6.00	+1.30	+4.30	=	51
72.30	-	31.30	64.00	+8.00	-	—8.00	=	52
68.45	16.15	18.45	64.15	—0.38	—4.00	+3.52	+0.46	53
68.30	16.00	24.00	59.30	—4.30	=	+4.30	=	54

Classified Distribution of Weekly Time — Concluded.

RECAPITULATION.

	CLASSIFICATION OF SERVICE.	Number Employed	FIRST WEEK			
			Busy	Call	Free	Rest
1	Chambermaids,	1	81.00	—	23.00	64.00
2	Chambermaids and laundresses,	6	66.50	12.22	27.33	61.15
3	Chambermaids and seamstresses,	3	72.27	10.30	22.45	62.18
4	Cooks,	47	76.17	10.00	24.01	57.42
5	Cooks and laundresses,	2	66.45	21.45	22.00	57.30
6	General housework,	127	72.39	10.56	26.30	57.55
7	Laundresses,	1	59.00	—	33.30	75.30
8	Nursery governesses,	2	75.08	14.15	20.00	55.37
9	Nursery maids,	7	77.27	13.15	20.24	56.54
10	Parlor maids,	7	72.04	16.32	17.15	62.09
11	Seamstresses,	1	73.00	16.30	14.00	64.30
12	Seamstresses and ladies' maids,	1	76.10	—	31.50	60.00
13	Seamstresses and second girls,	1	75.45	9.30	22.45	60.00
14	Second girls,	34	72.58	16.36	19.30	58.56
15	Waitresses,	5	71.27	12.42	20.57	62.54
16	ALL BRANCHES OF DOMESTIC SERVICE,	245	73.20	11.50	24.22	58.28

The recapitulation of this table shows in its final line that the average time during which the employes, as a whole, were busy during the first week was 73 hours 20 minutes, dropping to 72 hours 54 minutes in the second week. The average time during which the employes were subject to call during the first week was 11 hours 50 minutes, and during the second week, 11 hours 32 minutes. The free time during the first week averaged 24 hours 22 minutes, and during the second week, 25 hours 10 minutes; the time devoted to rest being, on the average, 58 hours 28 minutes during the first week, and 58 hours 24 minutes during the second week.

In the following table the busy and call time has been combined for the week, for the purpose of determining the average length of the week's service in hours and minutes:

CLASSIFICATION OF SERVICE.	LENGTH OF WEEK'S WORK IN HOURS AND MINUTES	
	First Week	Second Week
Chambermaids,	81.00	72.00
Chambermaids and laundresses,	79.12	79.35
Chambermaids and seamstresses,	82.57	82.15
Cooks,	86.17	86.01
Cooks and laundresses,	88.30	85.22
General housework,	83.35	83.06
Laundresses,	59.00	42.00
Nursery governesses,	92.23	86.53
Nursery maids,	90.42	87.45
Parlor maids,	88.36	86.06
Seamstresses,	89.30	85.00
Seamstresses and ladies' maids,	76.10	75.00
Seamstresses and second girls,	85.15	77.30
Second girls,	89.34	89.27
Waitresses,	84.09	82.06
ALL BRANCHES OF DOMESTIC SERVICE,	85.10	84.26

Classified Distribution of Weekly Time — Concluded.

RECAPITULATION.

SECOND WEEK				INCREASE (+), OR DECREASE (—), OF AVERAGE NUMBER OF HOURS AND MINUTES FOR EACH PERSON FOR SECOND WEEK AS COMPARED WITH FIRST WEEK				
Busy	Call	Free	Rest	Busy	Call	Free	Rest	
72.00	—	32.00	64.00	—9.00	—	+9.00	=	1
65.02	14.33	27.45	60.40	—1.48	+2.11	+0.12	—0.35	2
71.15	11.00	23.50	61.55	—1.12	+0.30	+1.05	—0.23	3
76.00	10.01	24.33	57.26	—0.17	+0.01	+0.32	—0.16	4
66.52	18.30	24.45	57.53	+0.07	—3.15	+2.45	+0.23	5
72.25	10.41	27.12	57.42	—0.14	—0.15	+0.42	—0.13	6
42.00	—	45.00	81.00	—17.00	—	+11.30	+5.30	7
76.53	10.00	22.45	58.22	—1.15	—4.15	+2.45	+2.45	8
75.04	12.41	22.36	57.39	—2.23	—0.34	+2.12	+0.45	9
69.45	16.21	20.07	61.47	—2.19	—0.11	+2.52	—0.22	10
73.00	12.00	19.00	64.00	=	—4.30	+5.00	—0.30	11
75.00	—	33.00	60.00	—1.10	—	+1.10	=	12
67.00	10.30	30.30	60.00	—8.45	+1.00	+7.45	=	13
73.41	15.46	19.10	59.23	+0.43	—0.50	—0.20	+0.27	14
70.42	11.24	22.42	63.12	—0.45	—1.18	+1.45	+0.18	15
72.54	11.32	25.10	58.24	—0.26	—0.18	+0.48	—0.04	16

The average time of service for the entire group of 245 employés was 85 hours 10 minutes for the first week, and 84 hours 26 minutes for the second week; and these averages may stand as representing general conditions, so far as can be obtained from an inspection of two weeks. The following classes of employés were employed longer (including call time) than the general average in each of the weeks: Cooks, cooks and laundresses, nursery governesses, nursery maids, parlor maids, seamstresses, and second girls; on the other hand, the chambermaids, and the employés who did laundry work only and laundry work combined with chamber work, chambermaids and seamstresses, general housework, also the seamstresses and ladies' maids, and waitresses rendered service aggregating less than the average in each of the weeks considered.

It will be noticed that when the full time of service is taken into account, the relation of the different classes to the general average is somewhat different from that which appeared when busy time only is considered. This difference, of course, is due entirely to the different amounts of call time returned for the different classes of employés.

The reader who is interested in tracing the variations from the normal in the different classes of employés, and the relation of this variation to the different rates of wages paid in each class, may, of course, consult the data contained in the body of the table.

BUSY TIME ON THE "DAY OUT."

The effect upon the daily working time of what is popularly called the "day out," usually granted to the domestic employé during the week, is shown in the following table, which is presented in the same detail and subject to the same classification as that contained in the preceding table, in order that cross references may be made, if desired.

Busy Time on "Day Out:" Averages by Branch of Service and Compensation.

CLASSIFICATION OF SERVICE AND WAGES.	FIRST WEEK		SECOND WEEK	
	Number Employed	Average Busy Time in Hours and Minutes	Number Employed	Average Busy Time in Hours and Minutes
Chambermaids and laundresses,	4	7.00	5	7.15
\$4.00,	2	6.30	3	6.45
4.50,	2	7.30	2	8.00
Chambermaids and seamstresses,	2	7.03	2	6.53
\$4.00,	1	6.15	-	-
4.50,	1	8.00	2	6.53
Cooks,	27	7.22	31	7.08
\$3.50,	1	8.15	-	-
4.00,	8	6.49	8	7.02
4.50,	5	8.09	7	8.17
5.00,	10	8.00	13	7.05
6.00,	2	4.45	3	5.00
6.46,	1	6.00	-	-
Cooks and laundresses,	1	9.00	-	-
\$5.00,	1	9.00	-	-
General housework,	86	7.36	92	7.03
\$2.50,	-	-	1	5.00
3.00,	15	7.27	16	7.34
3.50,	33	7.45	35	7.42
3.75,	1	8.30	1	8.30
4.00,	31	7.31	35	6.13
4.50,	3	8.20	2	7.53
5.00,	3	6.35	2	5.45
Laundresses,	1	6.30	-	-
\$4.62,	1	6.30	-	-
Nursery governesses,	1	7.15	1	7.15
\$5.00,	1	7.15	1	7.15
Nursery maids,	1	8.00	4	8.00
\$2.50,	1	8.00	2	8.00
3.00,	-	-	1	8.30
3.50,	-	-	1	7.30
Parlor maids,	5	7.51	5	6.42
\$4.00,	2	7.38	1	6.00
4.30,	-	-	1	5.30
4.50,	1	7.30	2	7.00
5.00,	2	8.15	1	8.00
Seamstresses and ladies' maids,	1	7.00	-	-
\$4.00,	1	7.00	-	-
Seamstresses and second girls,	-	-	1	6.30
\$2.50,	-	-	1	6.30
Second girls,	21	7.09	20	7.46
\$3.00,	1	8.00	3	7.15
3.25,	-	-	1	8.15
3.50,	1	8.15	4	6.56
3.92,	1	3.30	-	-
4.00,	15	7.21	8	8.13
4.50,	2	6.30	3	8.20
5.00,	1	7.00	1	7.00
Waitresses,	4	8.15	4	8.08
\$4.00,	-	-	1	7.30
4.15,	1	8.00	-	-
4.50,	2	8.00	2	8.00
5.77,	1	9.00	1	9.00

Busy Time on "Day Out:" Averages by Branch of Service and Compensation
— Concluded.

RECAPITULATION.

CLASSIFICATION OF SERVICE.	FIRST WEEK		SECOND WEEK	
	Number Employed	Average Busy Time in Hours and Minutes	Number Employed	Average Busy Time in Hours and Minutes
Chambermaids and laundresses,	4	7.00	6	7.15
Chambermaids and seamstresses,	2	7.08	2	6.53
Cooks,	27	7.22	31	7.08
Cooks and laundresses,	1	9.00	-	-
General housework,	86	7.36	92	7.03
Laundresses,	1	6.30	-	-
Nursery governesses,	1	7.15	1	7.15
Nursery maids,	1	8.00	4	8.00
Parlor maids,	5	7.51	5	6.42
Seamstresses and ladies' maids,	1	7.00	-	-
Seamstresses and second girls,	-	-	1	6.30
Second girls,	21	7.09	20	7.46
Waitresses,	4	8.15	4	8.08
ALL BRANCHES OF DOMESTIC SERVICE,	154	7.30	165	7.12

In referring to the recapitulation, it will at once be seen that the number of employes included within it is only 154 for the first week, and 165 for the second week. In other words, 91 employes were given no "day out" during the first week, and 80 had no "day out" during the second week, out of the total number of 245 employes previously considered. It will be seen that the average busy time on the "day out" for all the persons who had such a day during the first week was seven hours 30 minutes, and for the second week, seven hours 12 minutes. This figure, of course, may be compared with the general average daily busy time previously cited, which was for all classes of employes, 10 hours 29 minutes the first week, and 10 hours 25 minutes the second week. Thus, although the employes nominally had a "day out," the full amount of busy time returned on that day was, upon the average, only two hours 59 minutes less than the daily average for the entire week for the first week, and three hours 13 minutes less than the daily average for the entire week for the second week. The details for each class of employes appear in the table, and may be compared with similar details in the preceding tables.

It may be stated that the number of persons who reported no "day out" during the week included in each of the weeks under consideration one chambermaid, one chambermaid and seamstress, one nursery governess, two parlor maids, one seamstress, and one waitress. The number of cooks who had no time out was for the first week 20, and for the second 16. There were also one cook and laundress for the first week and two for the second; 41 employes in general housework during the first week and 35 during the second; two chambermaids and laundresses during the first week and one during the second; one laundress during the second week; six nursery maids during the first week and three

during the second; one seamstress and ladies' maid during the second week; one seamstress and second girl during the first week; and 13 second girls during the first week and 14 during the second, none of whom had a so-called "day out" during the week in question. Undoubtedly in some cases these employes were given opportunity to go out during the evening so as to partly compensate for the usual "day out." In other cases, while no fixed "day out" is given, employes may take outing time occasionally where it will not interfere with their work, or discommode the family. Besides this, the common practice prevails of allowing a "day out" once in two weeks, hence in most cases where an employe had no "day out" during the particular weeks covered by the inquiry it is probable that a "day out" was given during the preceding or following week.

BUSY TIME ON SUNDAYS.

The next table, identical in form with the one just presented, shows the average busy time upon Sundays.

Busy Time on Sundays: Averages by Branch of Service and Compensation.

CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	AVERAGE BUSY TIME IN HOURS AND MINUTES FOR SUNDAYS	
		First Week	Second Week
Chambermaids,	1	9.00	*-
\$4.62,	1	9.00	*-
Chambermaids and laundresses,	6	5.35	4.28
\$4.00,	3	4.20	3.15
4.50,	3	6.50	5.40
Chambermaids and seamstresses,	3	6.30	5.45
\$4.00,	1	3.30	2.30
4.50,	2	8.00	7.23
Cooks,	47	8.06	8.14
\$3.50,	2	6.53	8.23
4.00,	13	7.44	7.46
4.50,	9	7.56	8.15
5.00,	18	8.20	8.17
6.00,	4	9.11	9.11
6.46,	1	*-	9.00
Cooks and laundresses,	2	4.45	4.45
\$4.00,	1	6.30	6.30
5.00,	1	3.00	3.00
General housework,	127	7.11	7.08
\$2.50,	3	4.40	5.20
2.75,	1	7.30	7.30
3.00,	19	7.09	6.56
3.25,	1	6.15	6.15
3.50,	49	6.59	6.53
3.75,	1	8.30	8.30
4.00,	46	7.30	7.27
4.50,	4	6.33	9.15
5.00,	3	8.35	6.10
Laundresses,	1	12.00	*-
\$4.62,	1	12.00	*-
Nursery governesses,	2	10.23	9.23
\$5.00,	2	10.23	9.23

Busy Time on Sundays: Averages by Branch of Service and Compensation —
Concluded.

CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	AVERAGE BUSY TIME IN HOURS AND MINUTES FOR SUNDAYS	
		First Week	Second Week
Nursery maids,	7	8.11	8.34
\$2.00,	1	7.30	7.30
2.50,	3	8.45	8.10
3.00,	1	8.00	11.30
3.50,	1	5.00	11.00
4.00,	1	10.30	5.30
Parlor maids,	7	7.45	6.24
\$4.00,	2	4.08	4.23
4.30,	1	11.30	8.00
4.50,	2	6.45	7.15
5.00,	2	10.30	6.45
Seamstresses,	1	2.30	2.30
\$4.00,	1	2.30	2.30
Seamstresses and ladies' maids,	1	11.40	6.00
\$4.00,	1	11.40	6.00
Seamstresses and second girls,	1	6.00	5.00
\$2.50,	1	6.00	5.00
Second girls,	34	7.26	7.44
\$3.00,	5	7.21	8.57
3.25,	1	9.45	8.00
3.50,	5	8.33	7.42
3.92,	1	7.00	8.30
4.00,	16	6.38	7.12
4.50,	4	9.23	8.45
5.00,	2	6.30	6.30
Waitresses,	5	6.12	5.36
\$4.00,	1	5.30	6.00
4.15,	1	*—	8.30
4.50,	2	6.23	5.45
5.77,	1	6.30	2.00

RECAPITULATION.

CLASSIFICATION OF SERVICE.	Number Employed	AVERAGE BUSY TIME IN HOURS AND MINUTES FOR SUNDAYS	
		First Week	Second Week
Chambermaids,	1	9.00	*—
Chambermaids and laundresses,	6	5.35	4.28
Chambermaids and seamstresses,	3	6.30	5.45
Cooks,	47	8.06	8.14
Cooks and laundresses,	2	4.45	4.45
General housework,	127	7.11	7.08
Laundresses,	1	12.00	*—
Nursery governesses,	2	10.23	9.23
Nursery maids,	7	8.11	8.34
Parlor maids,	7	7.45	6.24
Seamstresses,	1	2.30	2.30
Seamstresses and ladies' maids,	1	11.40	6.00
Seamstresses and second girls,	1	6.00	5.00
Second girls,	34	7.26	7.44
Waitresses,	5	6.12	5.36
ALL BRANCHES OF DOMESTIC SERVICE,	245	7.24	7.18

* Away.

Four employés out of the whole number considered were reported upon the schedules as being away all the time on Sunday ; one cook and one waitress during the first week, and one chambermaid and one laundress during the second week. In qualification it is explained that these were old servants who had been in the service of the family for many years, and that every other week, that is, once in two weeks, they were given their time extending from Saturday night until Monday morning. In computing the general average for Sunday for the specified branches of service, these cases have been disregarded.

The average busy time upon Sunday for the employés, as a whole, was for the first week seven hours 24 minutes, and for the second week seven hours 18 minutes. Variations from the average, presented by the averages for the different classes, may be noted in the table, from which it will be seen that in a few cases Sunday, instead of being a light or easy day for the employé, really requires longer service, classed as busy time, than that rendered during the week.

That the effect of including call time with the busy time on the "day out" and Sunday may be seen, we insert a condensed table showing the average full service time for each class of employés.

CLASSIFICATION OF SERVICE.	AVERAGE FULL SERVICE TIME ON "DAY OUT"				AVERAGE FULL SERVICE TIME ON SUNDAY			
	FIRST WEEK		SECOND WEEK		FIRST WEEK		SECOND WEEK	
	Number	Time	Number	Time	Number	Time	Number	Time
Chambermaids,	-	-	-	-	1	9.00	*1	-
Chambermaids and laundresses,	4	7.23	5	7.15	6	6.40	6	8.28
Chambermaids and seamstresses,	2	7.08	2	8.08	3	7.50	3	7.35
Cooks,	27	7.27	31	7.17	*47	8.48	47	9.41
Cooks and laundresses,	1	9.00	-	-	2	10.30	2	4.45
General housework,	86	7.39	92	7.41	127	7.46	127	7.21
Laundresses,	1	6.30	-	-	1	12.00	*1	-
Nursery governesses,	1	7.15	1	7.15	2	10.23	2	9.23
Nursery maids,	1	8.00	4	7.53	7	8.49	7	9.43
Parlor maids,	5	7.51	5	6.42	7	9.54	7	7.41
Seamstresses,	-	-	-	-	1	7.00	1	2.30
Seamstresses and ladies' maids,	1	7.00	-	-	1	11.40	1	6.00
Seamstresses and second girls,	-	-	1	10.00	1	7.00	1	6.00
Second girls,	21	7.10	20	7.53	34	9.30	34	8.56
Waitresses,	4	8.15	4	8.08	*5	9.19	5	6.42
ALL BRANCHES OF DOMESTIC SERVICE,	154	7.33	165	7.37	245	8.19	245	8.03

* Includes one employé "away" who is not considered in the average.

The average full service time on the "day out," the entire number of employés who had such a day being considered, and including under the head of service time both busy and call time, was for the first week seven hours 33 minutes, and for the second week seven hours 37 minutes. Comparing these results with the corresponding averages for busy time only, given on page 15, namely, seven hours 30 minutes, and seven hours 12 minutes, it is, of course, seen that the call time on the "day

out" has little effect in increasing the average period of service. That is, when the busy time is over on that day the employé is permitted to go.

On Sunday, however, the case is slightly different. The present table shows that the average full service time on Sunday, call time being included, was, for the first week eight hours 19 minutes, and for the second week eight hours three minutes, as against seven hours 24 minutes and seven hours 18 minutes, for busy time only, shown by the recapitulation on page 17. That is, the inclusion of call time with busy time lengthens the average period of service on Sunday about one hour, when all the employés are considered. The variations from this, shown by the average for the different classes, may be noted from the table in comparison with the preceding recapitulations.

DAILY BUSY TIME EXCLUSIVE OF SUNDAY AND THE "DAY OUT."

The following table shows the average daily busy time, exclusive of Sundays and the "day out." That is, in computing the daily average, the "day out" and Sunday have been omitted, so that the effect of the shorter working time on these two days of the week shall not operate to reduce the average daily busy time.

Daily Busy Time (Exclusive of Sunday and "Day Out"): Averages by Branch of Service and Compensation.

CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	AVERAGE DAILY BUSY TIME IN HOURS AND MINUTES	
		First Week	Second Week
Chambermaids,	1	12.00	12.00
\$4.62,	1	12.00	12.00
Chambermaids and laundresses,	6	10.37	10.30
\$4.00,	3	10.15	9.51
4.50,	3	10.58	11.09
Chambermaids and seamstresses,	3	11.28	11.28
\$4.00,	1	11.15	11.15
4.50,	2	11.35	11.32
Cooks,	47	11.50	11.54
\$3.50,	2	12.25	12.31
4.00,	13	11.51	12.12
4.50,	9	11.17	11.11
5.00,	18	11.56	11.54
6.00,	4	12.32	12.29
6.46,	1	11.00	11.00
Cooks and laundresses,	2	10.32	10.22
\$4.00,	1	9.45	9.45
5.00,	1	11.18	10.58
General housework,	127	11.20	11.20
\$2.50,	3	11.28	11.39
2.75,	1	12.03	12.08
3.00,	19	10.44	10.42

Daily Busy Time (Exclusive of Sunday and "Day Out") : Averages by Branch of Service and Compensation — Continued.

CLASSIFICATION OF SERVICE AND WAGES.	Number Employed	AVERAGE DAILY BUSY TIME IN HOURS AND MINUTES	
		First Week	Second Week
General housework — Con.			
\$3.25,	1	11.08	10.53
3.50,	49	11.24	11.28
3.75,	1	9.54	9.54
4.00,	46	11.27	11.26
4.50,	4	11.49	11.55
5.00,	3	12.04	11.09
Laundresses,	1	8.06	7.00
\$4.62,	1	8.06	7.00
Nursery governesses,	2	11.40	11.37
\$5.00,	2	11.40	11.37
Nursery maids,	7	11.39	11.27
\$2.00,	1	10.15	10.15
2.50,	3	12.16	11.47
3.00,	1	12.00	12.00
3.50,	1	11.00	11.00
4.00,	1	11.30	11.30
Parlor maids,	7	11.07	11.05
\$4.00,	2	9.45	9.41
4.30,	1	13.00	13.00
4.50,	2	10.08	10.09
5.00,	2	12.30	12.27
Seamstresses,	1	11.45	11.45
\$4.00,	1	11.45	11.45
Seamstresses and ladies' maids,	1	11.30	11.30
\$4.00,	1	11.30	11.30
Seamstresses and second girls,	1	11.38	11.06
\$2.50,	1	11.38	11.06
Second girls,	34	11.22	11.21
\$3.00,	5	11.36	11.39
3.25,	1	10.35	11.36
3.50,	5	10.37	10.51
3.92,	1	12.18	12.20
4.00,	16	11.40	11.32
4.50,	4	11.28	11.21
5.00,	2	9.52	9.52
Waitresses,	5	11.29	11.18
\$4.00,	1	12.35	12.18
4.15,	1	11.18	10.40
4.50,	2	11.00	11.00
5.77,	1	11.30	11.30

RECAPITULATION.

CLASSIFICATION OF SERVICE.	Number Employed	AVERAGE DAILY BUSY TIME IN HOURS AND MINUTES	
		First Week	Second Week
Chambermaids,	1	12.00	12.00
Chambermaids and laundresses,	6	10.37	10.30
Chambermaids and seamstresses,	3	11.28	11.26
Cooks	47	11.50	11.54

Daily Busy Time (Exclusive of Sunday and "Day Out") : Averages by Branch of Service and Compensation — Concluded.

RECAPITULATION — Concluded.

CLASSIFICATION OF SERVICE.	Number Employed	AVERAGE DAILY BUSY TIME IN HOURS AND MINUTES	
		First Week	Second Week
Cooks and laundresses,	2	10.32	10.22
General housework,	127	11.20	11.20
Laundresses,	1	8.06	7.00
Nursery governesses,	2	11.40	11.37
Nursery maids,	7	11.39	11.27
Parlor maids,	7	11.07	11.05
Seamstresses,	1	11.45	11.45
Seamstresses and ladies' maids,	1	11.30	11.30
Seamstresses and second girls,	1	11.38	11.06
Second girls,	34	11.22	11.21
Waitresses,	5	11.29	11.18
ALL BRANCHES OF DOMESTIC SERVICE,	245	11.25	11.24

Referring to the final line of the recapitulation it will be seen that the average time busy for the 245 employés, on days exclusive of Sunday and the "day out," was 11 hours 25 minutes for the first week considered, and 11 hours 24 minutes for the second week. These averages may be compared with the averages shown in the first table, pages 2-7, which were computed for the seven days of the week, including Sunday and the "day out," and may also be compared with the averages for Sunday and the "day out," contained in the two preceding tables.

For instance, for the first week, the average daily busy time for the entire week for the 245 employés, as shown by the table, page 6, was 10 hours 29 minutes, and for the second week, page 7, 10 hours 25 minutes. By the present table, however, it will be seen that the average busy time for the five days, exclusive of Sunday and the "day out," was for the first week 11 hours 25 minutes, and for the second week 11 hours 24 minutes; while the averages for Sunday were seven hours 24 minutes, and seven hours 18 minutes, and upon the "day out," seven hours 30 minutes, and seven hours 12 minutes. The full effect of excluding the "day out" and Sunday from the computation of the average daily busy time is to increase this average for the first week 56 minutes, and for the second week 59 minutes. In other words, the average daily busy time, when uninfluenced by the shorter time on Sunday and the "day out," is for the first week 56 minutes, and for the second week 59 minutes longer than the respective averages for the week when long and short days are included. A similar comparison for each class of employés, and for all the different wage groups under each class head, may be made by means of this table, in which the classification by groups is identical with that used in the tables which have preceded it.

Finally, we present a table showing in condensed form for each class of the employ  s and for all aggregated, the average length of daily service in hours and minutes, exclusive of Sunday and the "day out;" in other words, the average daily busy time and call time combined.

CLASSIFICATION OF SERVICE.	Number Employed	AVERAGE LENGTH OF DAILY SERVICE IN HOURS AND MINUTES (EXCLUSIVE OF SUNDAY AND "DAY OUT")	
		First Week	Second Week
Chambermaids,	1	12.00	12.00
Chambermaids and laundresses,	6	12.16	12.05
Chambermaids and seamstresses,	3	13.12	12.59
Cooks,	47	13.15	13.05
Cooks and laundresses,	2	13.22	13.26
General housework,	127	13.05	13.03
Laundresses,	1	8.06	7.00
Nursery governesses,	2	12.57	12.31
Nursery maids,	7	13.21	13.12
Parlor maids,	7	13.50	13.56
Seamstresses,	1	13.45	13.45
Seamstresses and ladies' maids,	1	11.30	11.30
Seamstresses and second girls,	1	13.03	12.18
Second girls,	34	13.55	13.54
Waitresses,	5	13.29	13.15
ALL BRANCHES OF DOMESTIC SERVICE,	245	13.13	13.09

Referring to the final line of this table we note that excluding Sunday and the "day out," and combining both busy and call time, the average length of daily service is, for the first week, 13 hours 13 minutes; and for the second week, 13 hours nine minutes. Thus the inclusion of call time raises the average on the full days one hour 48 minutes for the first week, and one hour 45 minutes for the second week; increasing the length of the day's work to that extent over the average shown for busy time only.

THE EMPLOYMENT OF "CALL TIME."

Although not actively engaged upon her regular duties during the hours designated as "call time," nevertheless, the employ  e is held in readiness to perform certain work that may at any moment be required. The replies as to the nature of this work indicate, in general, that upon call, the employ  s were engaged in answering the door or telephone, taking care of children, waiting upon invalids, assisting other domestics, serving tea or lunches, taking charge in absence of other employ  s, attending to fires or lights, doing errands, or performing other occasional and temporary duties. Whenever not required for service during "call time" the employ  s are reported to be engaged in amusement or recreation, reading, entertaining personal friends (callers), or performing work personal to themselves, such as sewing, laundry work, etc; but they are not, of course, permitted to leave the house.

The statistics previously cited show that if call time could be dispensed with, the day's work would be materially shortened. It may be inferred, therefore, that part of the objection to domestic employment based on long hours, may be overcome, in so far as the employé can be wholly or partly relieved from the necessity of remaining in attendance after her busy time is over, for the purpose of performing incidental and occasional service.

RESTRICTIONS UPON FREE TIME.

The free time of the domestic employé is not entirely free, that is, is often subject to certain restrictions imposed in order to conform to the customs or peculiarities of the family in which the person is employed. Perhaps the most important of these is a rule as to the hour at which the employé is required to return when permitted to go out. The limit of 10 o'clock in the evening seems to predominate, although in a few cases absence until 10.30 is permitted. In some instances it is stated that but few callers are allowed, although a definite restriction of this kind is rare. In general, it is expected that visitors in the evening will leave as early as 10 o'clock. In general, also, meals must not be served to friends or visitors, exceptions being permitted when the visitor has come from a long distance. As a rule, visitors are to be received in the kitchen, although in some instances the dining-room or nursery may be used by the employé for this purpose.

To these general rules there are, of course, exceptions due to peculiar or individual circumstances. In many cases, the employés are of long service in the family, and are therefore subjected to no definite restrictions, it being well understood on each side that such freedom will not be abused. To such employés latch keys are often permitted, the hour of return in the evening being left to the employé's judgment. In such cases, too, instead of a fixed and limited outing time the employé is permitted to take any evening when not needed in the house, or when the absence will cause no disarrangement of the household economy. Apparently, length of service, proved reliability, and trustworthiness operate to reduce to the minimum the restrictions upon the use of free time. Perhaps, in such cases, it may be said that the needful restrictions are understood and conformed to, without being reduced to explicit rules.

The replies indicate, however, that for obvious reasons, employés are expected to obtain permission before going out. Some are given three free evenings each week, some four, and a large number have less than three. In some instances the employés sleep out of the house, leaving at seven or eight in the evening and returning the next morning, being free from restrictions during the interim, but this practice does not widely prevail.

The replies showed that in some cases two weeks vacation was given in the summer without loss of pay. A more general practice, however,

is to give the employé a whole day and evening free occasionally, in some instances regularly each month, or possibly once in three weeks.

One exceptional reply may be noted. An employer reports that she gives her employés more privileges than usual, and finds that her practice is better than that of "iron-clad rules," and enables her to retain her employés for longer periods of service.

HOURS FOR BEGINNING WORK.

With respect to the hour of beginning work daily, the replies indicate diversity of practice. The minor variations are so numerous that it has been found impracticable to present the information in tabular form. Upon the basis of the aggregate working time for the week, computed for all the employés considered in each class, the following general facts appear :

For the chambermaids, 85.71 per cent of the actual working time for each of the weeks fell upon days on which the employé was required to begin at seven o'clock in the morning. For the rest of the time during the first week, for which alone a statement is made, the time of beginning was one hour later.

For the chambermaids and laundresses, 59.53 per cent of the working time during the first week, and 57.15 per cent during the second, fell upon days on which the hour of beginning was 7.00 A.M.; 16.67 per cent in each week upon days on which the hour was 7.15 A.M. The rest of the time is covered by variations from these hours, ranging from half past six to half past nine o'clock.

For the cooks, the general practice seems to be sufficiently shown by the following percentages of the working time in each of the weeks respectively, that fell upon days on which the hours of beginning were as annexed: 34.96 per cent and 33.13 per cent, 6.00 A.M.; 26.75 per cent (each week), 6.30; 3.65 per cent and 4.87 per cent, 6.15; 7.60 per cent (each week), 6.45; 19.15 per cent and 20.06 per cent, 7.00 A.M. Variations from these hours, ranging from 4.00 A.M. to 9.30, occurred in a very limited number of instances.

Statements covering the larger part of the working time, expressed in percentages for each of the weeks, the hour of beginning being annexed, follow for all of the other classes.

Chambermaids and seamstresses, 28.58 per cent (each week), 6.45 A.M.; 33.33 per cent (each week), 7.00; 33.33 per cent (each week), 7.15.

Cooks and laundresses, 92.86 per cent and 57.16 per cent, 6.30 A.M.; 28.56 per cent (during second week), 6.45; 7.14 per cent (during second week), 7.00; 7.14 per cent (each week), 7.30.

General housework, 28.91 per cent and 25.87 per cent, 6.00 A.M.; 28.12 per cent and 29.92 per cent, 6.30; 14.74 per cent and 15.19 per cent, 7.00; the variations ranging from 4.00 A.M. to 11.00 A.M.

Laundresses, during the first week, 28.58 per cent, 7.00 A.M.; and 71.42 per cent, 9.30 A.M. During the second week, 14.29 per cent, 9.00 A.M.; 42.84 per cent, 9.30; and 14.29 per cent, 10.00.

Nursery governesses, in each of the weeks, 50 per cent, 6.45 A.M., and 50 per cent, 7.30. Nursery maids, in each of the weeks, 55.12 per cent, 6.30, and 30.59 per cent, 7.00.

Parlor maids, in each of the weeks, 38.77 per cent, 6.30 A.M., and 12.26 per cent, 6.45; 28.58 per cent and 30.59 per cent, 7.00; 14.27 per cent and 10.21 per cent, 7.30. Seamstresses, 85.71 per cent in each week, 6.45 A.M. Seamstresses and ladies' maids, and also seamstresses and second girls, 85.71 per cent in each week, 6.30.

Second girls, 21.01 per cent and 18.91 per cent, 6.00 A.M.; 32.77 per cent and 26.05 per cent, 6.30; 19.75 per cent and 26.90 per cent, 7.00; the variations ranging from five o'clock to nine.

Waitresses, 20 per cent and 17.14 per cent, 6.30 A.M.; 71.43 per cent (each week) 7.00; 5.71 per cent (each week) 8.00.

HOURS FOR CLOSING WORK.

There is a similar lack of uniformity as to the hour of closing work. For the chambermaids, 7.00 P.M. appears to be quite general. For chambermaids and laundresses, 16.67 per cent of the working time in each week fell upon days on which the hour of finishing work was 6.00 P.M.; 11.90 per cent during the first week and 9.52 per cent during the second week, 6.30 P.M.; 9.52 per cent (each week), 7.00; 38.11 per cent (each week), 10.00. Variations from these hours range from eleven o'clock in the morning to half past ten at night.

A similar statement covering the larger part of the working time follows for the other classes:

Chambermaids and seamstresses, 9.52 per cent and 4.76 per cent, 3.00 P.M.; 9.52 per cent and 14.30 per cent, 6.00; 19.04 per cent (each week), 7.30; 38.10 per cent (each week), 10.00; 14.30 per cent and 19.04 per cent, 10.30.

Cooks, 11.25 per cent and 8.51 per cent, 7.00 P.M.; 20.98 per cent and 22.19 per cent, 7.30; 12.47 per cent and 14.59 per cent, 8.00; 13.98 per cent and 15.51 per cent, 10.00. The variations from these hours range from ten o'clock in the morning to quarter before twelve at night.

Cooks and laundresses, 42.86 per cent and 35.72 per cent, 7.15 P.M.; 28.56 per cent during the second week, 7.30; 7.14 per cent and 14.30 per cent, 10.00; 14.30 per cent and 7.14 per cent, 10.30. The variations range from half past ten in the morning to quarter past ten at night.

General housework, 17.32 per cent and 15.75 per cent, 7.00 P.M.; 23.28 per cent and 24.19 per cent, 7.30; 12.04 per cent and 11.70 per cent, 8.00; the variations ranging from eight o'clock in the morning to eleven o'clock in the evening.

Laundresses, 57.13 per cent and 85.71 per cent, 5.00 p.m. In one instance the closing hour is named as 4.30, while seven o'clock and eight o'clock are mentioned in one instance each.

Nursery governesses, 50 per cent (each week), 8.00 p.m.; 14.30 per cent and 28.56 per cent, 10.00; the variations ranging from two o'clock in the afternoon to quarter before twelve in the evening. Nursery maids, 28.58 per cent and 20.39 per cent, 6.30 p.m.; 30.59 per cent and 32.65 per cent, 10.00; variations ranging from half past one in the afternoon to eleven o'clock in the evening. Parlor maids, 26.52 per cent and 16.32 per cent, 8.30 p.m.; 40.81 per cent and 42.84 per cent, 10.00; variations ranging from twelve o'clock, noon, to half past ten at night.

Seamstresses, 28.58 per cent (each week), 6.30 p.m.; 71.42 per cent and 57.13 per cent, 9.30. Seamstresses and ladies' maids, 71.42 per cent and 85.71 per cent, 6.00 p.m. Seamstresses and second girls, 14.29 per cent and 57.13 per cent, 6.30 p.m.; 28.58 per cent and 14.29 per cent, 7.00; 42.84 per cent and 14.29 per cent, 9.00.

Second girls, 9.24 per cent and 8.82 per cent, 7.00 p.m.; 15.55 per cent and 16.81 per cent, 7.30; 13.03 per cent (each week), 8.00; 10.09 per cent and 10.51 per cent, 9.00; 23.53 per cent and 21.85 per cent, 10.00. The closing hours range from ten o'clock in the morning to quarter before eleven in the evening.

Waitresses, 11.43 per cent and 14.29 per cent, 3.00 p.m.; 11.43 per cent and 17.14 per cent, 7.30; 22.85 per cent and 17.14 per cent, 8.00; 20 per cent and 17.14 per cent, 8.30; 25.71 per cent and 20 per cent, 10.00.

It will be seen in some cases an early hour of closing is indicated; for example, from ten to twelve o'clock in the morning or even earlier. Such variations from the general rule apply to the days on which the employé was given the balance of the time out.

CONCLUDING REMARKS.

The analysis which we have given of the statistical information seems to make any summary unnecessary. The difference between the number of hours required daily in domestic service, and the amount of free time afforded, and its character, as compared with conditions obtaining in the factory and in some kinds of mercantile employment is plainly apparent; the indefiniteness of the hours, or perhaps it would be more accurate to say the lack of uniformity in hours, is also strikingly shown. It might of course be true that notwithstanding the differences in time of service, the kind of service in the home would in many cases afford compensations, as compared with that demanded in the shop or factory, which would fairly offset such disadvantage as household service bears when the comparison turns on a mere statistical statement of time.

In a report issued by the Committee on Domestic Reform especially covering the objections raised against domestic service by those employed

in shops and factories,* it is stated that “the hours of housework by their length and indefiniteness were considered a tremendous drawback.” The agent of the Committee interviewed upon this subject 100 shop employés and 100 factory employés. Of the first class 35 considered the conditions as to hours of labor an objection to changing from the shop to the house, and of the last-named class 56, — more than one-half the entire number, raised the same objection. Whether or not anything can be done to make this objection less pertinent we need not now consider. The data contained in the preceding pages show that it rests upon a certain basis of truth. That many more offered it among the factory workers than among those employed in shops is no doubt due to the fact that, on the whole, the hours of labor are shorter and more definitely fixed in the factory than in the shops. The difference between the mere number of hours of service rendered daily in the home and the number required in mercantile employment appears to be much less than when the comparison is made with the legal factory hours of labor.

THE OBJECTIONS TO DOMESTIC SERVICE.

As all of those to whom this Bulletin will come may not have seen the little report issued by the Women’s Educational and Industrial Union, on the effort to attract the workers in shops and factories to domestic service, alluded to elsewhere,* we summarize the general results of the canvass conducted by the agent of the Union, intended to ascertain the reasons for preferring factory or shop employment to domestic service.

The number of employés for whom the statistics are presented in the report, is 200, equally divided between shop and factory employment. The objections raised to domestic service are tabulated under the following heads: Stigma, by which term is meant all objections based upon feelings of social pride or possible ostracism and loss of caste; less favorable hours of labor; isolation, due to working alone; lack of independence; women employers; too hard work, even with laundry work done out; housework distasteful; laundry work distasteful; less pay; and housework not more healthful.

Of the 100 shop employés, 35 considered the hours of labor an objection to entering domestic service, and 56 of the 100 factory employés were of the same opinion. Of each class, 33 objected to working alone.

* The Effort to Attract the Workers in Shops and Factories to Domestic Service. Boston, 1897. Women’s Educational and Industrial Union.

The lack of independence in household service was not referred to by any of the shop employes but, on the other hand, 24 factory employes raised this objection. Of the shop workers, 13 objected to women employers and 22 factory workers were like-minded. The number of shop workers who considered housework too hard, even with the laundry work excluded, was 27, and 22 factory employes were included under this head. Only 20 of each class objected to housework in itself, and but 16 shop workers and 15 factory workers raised distinct objections on account of laundry work. Very few, namely, four among the shop employes and 12 among the factory employes, considered the pay less in household service. Among the shop employes three, and of the factory employes nine, did not think housework more healthful than their present employment. The stigma which was believed to rest upon domestic service was considered an objection by 48 shop employes and 35 factory workers. Upon this point the report says: "Such feelings (i. e. that stigma attaches to domestic service) were not often mentioned in the first few minutes of conversation but came out sooner or later. In some instances, however, absolutely no trace of this objection was met after a long talk. Yet thinking of the question abstractly is very different from meeting it face to face, and it was seen in two or three instances later that the feeling was latent, though honestly not recognized at first by the woman herself. The strength of the social objection, then, is probably underestimated and should be regarded only as the opinion of these women viewing the question from an impersonal standpoint."

With respect to the dislike for housework, presented as an objection in 20 cases the report says:

"Only 20 in both (classes of employes) said they disliked housework. Many, in fact, admitted a great liking for it 'if they were doing it for themselves.' All but a few said that housework was more healthful and paid more. Yet while they were situated as at present their health was good enough and a little larger pay was no great inducement. One further fact was established, — that the factory girl doing hand work instead of sewing-machine work raised fewer objections than the latter. She spoke oftener of relatives at housework, and seemed to have less feeling of social stigma. In fact only 18 of the hand workers as against 54 of the machine workers evinced this feeling. Yet 46 of the hand workers objected to the long hours, 26 to working so much alone, and 20 to housework itself; and though in every instance but the last, where the corresponding number is 19, this is a smaller number than that of the machine workers, it is sufficiently large to indicate a strong opposition in the minds of these women to domestic service. In brief, the results of the investigation suggest no hope of the rejection by shop and factory girls of their present occupation in favor of housework, — excepting as the employers said, under unusual circumstances in individual cases."

The committee in charge of the work therefore suggest that "the emphasis (in its future work) must be laid on interesting and awakening employers (in domestic service). Wide-spread interest would culminate in specific changes, and bit by bit domestic service would become a possible alternative to the shop and factory."

QUARTERLY REVIEW OF EMPLOYMENT AND EARNINGS.

QUARTER ENDING SEPTEMBER, 1898.

The regular quarterly summary of conditions affecting labor, employment, earnings, and cost of living, in the industrial centres of the Commonwealth, based upon special reports and comparisons made by agents of the Bureau, for the current quarter (ending September, 1898) follows :

BOSTON. In Machines and Machinery, improvement is noted for the quarter over conditions obtaining during the preceding three months. The cost of stock has increased, without change in the price of the manufactured product or in wages. Collections are reported as fair.

In Metals and Metallic Goods, also, improvement is evident upon the whole, as shown by a larger number employed and larger wage disbursements. This does not apply to every concern in the industry, however, as a number of firms report diminished business for the quarter. Comparing the results for the three months with the corresponding period in 1897, a few firms reported diminished output varying from 33 to 50 per cent, but the majority reported either as good or better conditions than those of last year. The cost of stock, especially copper, has increased, but, as in Machines and Machinery, the selling price of the product has not increased in equal proportion. Wages are unchanged. Collections, as a rule, are fair.

In Musical Instruments and Materials, the reports, on the whole, indicate a slight decrease in the number employed, but, on the other hand, an increase in the aggregate earnings. As compared with 1897, however, business in this industry is generally depressed. Prices of materials and product and the rate of wages are unchanged.

In the clothing industry, the usual summer dulness has affected employment and earnings; employment has been less, and a smaller amount disbursed in wages. Three of the firms visited, employing in the aggregate 40 per cent of the entire number of employes covered by this report, had reduced the number of persons employed 20 per cent for the

final week of the quarter as compared with the corresponding week in the previous quarter. As to the state of the industry for the quarter, compared with the corresponding months in 1897, out of 26 leading firms, eight report improvement, 13 consider conditions as practically the same, while five report a greater depression. August is always a comparatively dull month. The price of woollens, used as stock, has risen, except in the cheaper grades. The selling price of product and rates of wages are unchanged.

Returns from the printing, publishing, and bookbinding industry show varying conditions, according to the class of work done. On the whole, the volume of business was rather below the normal for the summer season.

With many establishments in this industry, the months covered by this report are the duller during the year. Wages in the industry have remained unchanged since last May, when the 54-hour rule went into effect. Collections are generally fair on large accounts, but slow on small ones. The cost of stock remains practically unchanged since May, although there is a tendency to advance in some lines. Diminished employment during the vacation season has correspondingly reduced the amounts paid out in wages.

In general, the building industry has not been as active during the quarter as during the corresponding season last year. There have been few operations of importance undertaken, and these few naturally fell to the larger concerns. About three-fourths of the firms visited reported that the business situation during the quarter has not been equal to that of the preceding quarter; nearly all the others, however, reported improvement, while a few considered conditions unchanged. Of the two last classes, however, many combine jobbing work with contracting, while the business of the first-named class is generally confined to contracting alone. Collections outside of regular contracts have been exceedingly hard during the summer, while it is reported to have been much easier to collect large accounts than small ones. The price of stock remains unchanged since May, except that the advance in hard pine, due to the war, reported in May, has been overcome by a corresponding decline. Wages have not changed at all since the advance conceded the masons in May, mentioned in our last report. Improvement in the industry is generally anticipated, as many operations are under consideration, but investors are reported as extremely conservative and cautious.

Nearly all the establishments engaged in brewing report a much duller season this summer than in 1897. Various reasons are assigned for this condition, the most prominent being the unsettlement due to the war tax. Retailers claim to be unable to reimburse themselves from their sales, and object to paying the increased price demanded by the manufacturer on account of the tax. Competition due to outside establishments has also reduced the output in Boston in some instances. As

compared with the preceding quarter, however, business is of much greater volume, due, of course, to the season. Collections are reported from "very hard" to "good," but, on the whole, as not very satisfactory. The manufacturer's selling price of the product has been increased by the amount of the government tax. The price of stock remains unchanged, and also the rates of wages.

In the manufacture of temperance drinks, bottling, etc., the summer volume of business has been greater than during 1897, and naturally much greater than for the previous quarter, with increased employment and a larger amount paid out in wages. The rates of wages, however, remain unchanged, with no change in selling prices or in the cost of stock.

Firms in Boston employing 6,921 persons at the close of the preceding quarter show an increase to 7,035, a gain of 1.65 per cent; the aggregate weekly payroll rising from \$77,829 to \$82,609, a gain of 6.14 per cent.

Reports from 34 of the larger intelligence offices show for the week ending August 20 an estimated number of 4,223 applicants for places, as against an estimated number of 6,065 for the week ending May 21, as reported in our last Bulletin. The actual number supplied with places for the first-named week was 1,131 as against 1,386 for the other. These offices always have the least number of applicants during the summer months.

BROCKTON. In the boot and shoe industry, business for the quarter was fully as good and possibly better than for the same period in 1897. The summer months are never active as compared with spring or fall.

In general, the rates of wages have not changed since the May report, except in cases where a machine of new principle has been adopted, necessitating the employment of special operatives. In individual cases, extras due to changes in method have increased the pay of individuals somewhat. Western houses are buying a better grade of goods than for some time past, and a good fall trade is anticipated. The manufacturers, however, claim that the margin for profits on men's goods is unreasonably small. A gain of about 25 per cent is indicated in the number of employes on the rolls at the close of the quarter covered by this report as compared with the close of the preceding quarter; and a much greater percentage of increase in the amount disbursed in wages.

CAMBRIDGE. In Metals and Metallic Goods, the range of employment and earnings is less for the present quarter than for the three months preceding, while in Machines and Machinery practically no change appears. On the whole, however, considering identical establishments and including all which were visited, there was a smaller number employed for the last week of the quarter as compared with the last week of the preceding quarter, and, of course, a decline in aggregate amount of earnings.

CHICOPEE. Reports from the cotton industry indicate no material change as compared with the spring, although conditions are considered somewhat better than for the corresponding months in 1897. No change in wages has taken place. Establishments reporting 2,966 employés on the rolls during the last week of the preceding quarter, show 2,973 for the corresponding week covered by the present report, practically no change; the weekly payrolls being respectively \$17,209 and \$17,109.

FALL RIVER. In the cotton industry, especially for a short time during the latter part of August, the demand was not as good as during the same months last year, nor as good generally as during the spring months. Some mills have been shut down a great deal, and a proposition to temporarily close all the mills has been discussed. Collections are good, but the price of the manufactured product (print cloth) is lower than in the spring, and has reached the lowest point ever touched during the summer, namely, one and seven-eighths cents. Raw cotton is lower than in May, with the tendency still downward. Wages have not changed since the reduction of last January. The establishments are hopefully awaiting an improvement in prices and demand, but without much encouragement.

Establishments which carried 3,804 persons on the rolls for the last week of the preceding quarter report 3,774 for the last week covered by the present returns, a decline of less than one per cent; the payroll for each week respectively being \$23,328 and \$23,210.

HAVERHILL. In the boot and shoe industry, the majority of manufacturers visited reports improvement as compared with 1897. The remarks as to the condition of the industry during the summer months in Lynn and Brockton apply to Haverhill also. These months are between seasons, so to speak, and the demand is not, of course, as great as in the spring. Collections have improved since May, and are generally satisfactory. Selling prices have not materially changed, while stock has increased in cost from two and one-half to five per cent. Practically, the rates of wages remain unchanged.

For corresponding weeks of the present and preceding quarter, the firms reporting show a decline in the number of persons employed from 2,278 to 2,125, a decrease of 6.72 per cent; the aggregate weekly earnings falling from \$21,535 to \$18,307, a decrease of 14.99 per cent.

HOLYOKE. In the paper industry, there has been little change since May, although conditions are considered somewhat better than for the corresponding months in 1897. A slight increase in some kinds of raw stock is reported, while the selling value of the product remains unchanged, except a slight decrease in the price of certain grades of paper. Collections are reported generally good and the rates of wages remain unchanged since May.

In the cotton industry, conditions remain as in the spring, although somewhat better than for the corresponding months in 1897. Here, as

elsewhere, the price of the product has decreased. The rates of wages remain unchanged since May. Collections are reported as fair.

The condition of the woollen industry, except in cases where special lines of goods are made, indicates a decline of about 25 per cent, as compared with the three months ending May 21, and possibly 50 per cent less than during the summer months of 1897. One firm, however, making a special line of goods, reports conditions as 10 per cent better than in 1897. There has been, on the whole, a slight decrease in the selling value of goods made, as compared with early in the year. Rates of wages remain unchanged.

The establishments in the different industries reporting persons employed at the close of the quarter return 6,623 for the week as against 6,736 for the last week of the preceding quarter, a decrease of 1.68 per cent; and a weekly payroll of \$47,032 as against \$48,054, a decline of 2.13 per cent.

LAWRENCE. As to cotton products, demand in most of the mills has been less than for the corresponding season of last year, and less than during the spring months; although one or two mills report business as being fully as good and even better than during the summer months of 1897. Still the fact remains that business has been very unsatisfactory both as to prices and volume. Prices for goods sold are the lowest witnessed in a great many years. Under existing conditions affecting the cotton crop and the price of raw cotton buyers are very conservative in placing orders. Some mills have been partially or wholly shut down for repairs, etc., during the summer, but generally the establishments have run full time. Duck mills employed on products for which demand was increased by the war have been fully as busy as in the spring. This activity, however, is not expected to continue. Rates of wages have not changed since May in the cotton industry. In the woollen industry there is less activity than during the same season in 1897. Wages have not changed materially, raw stock is firm, and in some grades higher than in the spring, but while past prices for the product have been maintained there has been no advance. Vacations and shutdowns for repairs have reduced the aggregate sum paid out in wages below that for the quarter covered by our last report.

In Lawrence, firms reporting 13,122 employes on the rolls for the week ending May 21 carried 14,285 for the last week covered by the present returns, a gain of 8.86 per cent; the weekly payrolls being \$95,998 and \$101,526, an increase of 5.76 per cent.

LOWELL. In Machines and Machinery, business is reported better for the present quarter than for the preceding three months with enlarged employment and earnings. Improvement is also noted as compared with the corresponding season last year. As elsewhere, the value of stock and material is reported higher without an advance in selling price of product or change in wages.

No change is reported in the woollen industry, which continues in as good condition as in the spring or as in 1897. This is partly due to exceptional demand on account of war material. In the cotton industry, slight improvement is reported as compared with the summer of 1897, but practically unchanged as compared with May. Employment, however, diminished in August as compared with May owing to vacations and other stoppages incident to the season.

Establishments reporting 15,449 persons on the rolls for the last week of the quarter covered by our last report employed 14,855 for the corresponding week of the quarter covered by this review, a decrease of 3.84 per cent. The weekly payroll declined from \$101,574 to \$96,555, a decrease of 4.94 per cent.

LYNN. In the boot and shoe industry, the larger part of the manufacturers visited reports business much better than for the corresponding season in 1897. The demand from western buyers has improved, and active fall trade is anticipated. A few manufacturers, however, are of the contrary opinion. The summer season is largely devoted to the production of samples, and large sales are not expected during the summer months, therefore employment and earnings are hardly to be compared favorably with the previous quarter. Collections are reported as from "fair" to "excellent." There has been no advance in selling prices since May, but generally an advance in stock. In general, rates of wages remain the same as in May.

In the leather industry, there is much difference of opinion as to the outlook. About one-half of the firms visited considered the condition of the industry fully as good as in 1897, while the other half reports that it is quieter or not nearly as good. It is, however, the general opinion that the prospects for the fall trade are better than usual. Selling prices are a little higher than in the spring, but raw stock is higher, and the margin for profits is narrow. Rates of wages remain the same as in May.

Firms employing 2,425 persons for the last week of the preceding quarter had upon the rolls 2,084 for the last week covered by the present report. The weekly payrolls for these employes respectively were \$23,329 and \$18,723, a decrease of 14.06 per cent in persons employed and of 19.74 per cent in the amount disbursed in wages.

NEW BEDFORD. Continued depression in the cotton industry is to be noted here, as elsewhere. Demand is less and prices lower than in May, and it is constantly harder to maintain the prices of product. Commission houses, realizing that the large accumulation of manufactured stock on hand at the mills can always be drawn upon to fill orders, and that these stocks are carried at the expense of the mills, do not purchase large quantities on a single order, as formerly, but allow the mills to bid for their orders as they receive them. This results in close figures for the producer, whatever may be the fact as to the commission houses. Several mills report the value of orders for June, July,

and August as from 10 to 20 per cent less than for the same months last year, and from 30 to 40 per cent less than for the quarter ending in February. Collections are excellent, and money easy. Wages have not been changed since May, at which time the operatives engaged in the previous strike returned to work, except in the case of such mills as had not reduced wages previously, a smaller schedule now being generally adopted. A better demand during the fall is anticipated, but it is expected that prices will rule low. Some of the yarn mills report improvement during the present summer as compared with corresponding months in 1897.

For the last week of the preceding quarter, the firms canvassed report 4,772 persons on the rolls, as against 5,254 for the last week of the present quarter, a gain of 10.10 per cent; the payroll rising from \$31,002 to \$33,680, a gain of 8.64 per cent.

Peabody. As in the leather industry in Lynn, the opinions of the manufacturers are by no means unanimous respecting business conditions. Apparently, however, demand is somewhat better than during the same months in 1897. Some manufacturers consider it as very much better. Demand has steadily improved during the last two months of the quarter. The manufacturers in this class, of course, speak in the most hopeful terms of the situation. A few others state that the demand is as good as in 1897, and others that it is not as good, but nearly all agree that conditions are better now than in May. Collections are easier than in the spring. There has been a slight advance in the selling price of some kinds of leather, but the market offers no concessions on the general list. Stock is, however, much higher than in 1897, and slightly higher than in May. Wages have not materially changed since May, but some firms report working conditions such as enable the workman to earn about a dollar more per man per week than in 1897. The margin for profits is considered much too small. It is considered by some of the large manufacturers that the outlook was never better, and that all indications point to much improvement in the near future. This especially applies to the morocco industry. The demand for upper leather is a little better than during the same season in 1897, but not so good in August as in May and June. Selling prices on this product are somewhat higher than in the spring, but the stock is higher.

In machines and machinery, on general work, business is reported somewhat better than in 1897, or than in the spring of the present year. In certain lines of product the improvement is much greater than in others. Selling prices have not materially changed. Stock has advanced about 10 per cent. Rates of wages remain unchanged since May.

In Peabody, for the last week of the quarter covered by this report, the firms visited had upon the rolls 1,220 persons as against 1,149 for the last week of the previous quarter, an increase of 6.18 per cent; the respective payrolls increasing from \$10,874 to \$11,552, a gain of 6.24 per cent.

WOBURN. In the leather industry here the reports show a decrease in business for the quarter as compared with the preceding three months. As compared with the corresponding months in 1897, one firm reports improvement, three consider conditions about the same, while seven report a decrease of about 20 per cent. While there has been a slight increase in the selling price of the finished product, there has been a material increase in the cost of raw stock. Rates of wages remain unchanged. Collections are reported as being easy and better than in 1897.

In establishments reporting for the last week of the present and preceding quarter, the number employed decreased from 1,168 to 1,010, a decline of 13.53 per cent; the weekly payroll falling from \$11,440 to \$9,900, a decline of 13.46 per cent.

WORCESTER. In the building industry here conditions seem to be practically the same as for the three preceding months, and somewhat better than during the corresponding period last year. One firm reports a volume of business 33 per cent larger than last year. The rates of wages remain unchanged since May, and no change is reported in the price of stock. Collections are considered to be fair.

The woollen industry is depressed, and the volume of business for the quarter is less than for the corresponding period in 1897. Although there has been no material change in the cost of wool since May, the selling value of the product has decreased, while the rates of wages remain unchanged. Collections are reported as good.

In Metals and Metallic Goods, a decrease in business is reported since May, although the quarter shows an improvement over the corresponding months in 1897. Raw material, such as iron and copper, has advanced in cost, but the selling value of the manufactured product remains about the same. Collections are reported as good, and the rates of wages remain unchanged.

In Machines and Machinery, with few exceptions, employment and earnings remain practically the same as during the preceding quarter, but conditions are not considered as good as in 1897. A decrease in the number of persons employed during August is due to the vacation season rather than to depression in business. Stock and materials of manufacture have increased, but the selling price of product and rates of wages remain unchanged.

Firms employing 6,714 persons during the last week of the preceding quarter report a decline to 6,468 for the last week covered by the present returns, a decrease of 3.66 per cent; the aggregate payroll declining from \$72,286 to \$62,964, a decrease of 12.90 per cent.

Cost of Living. Returns from retail dealers reflect the usual summer dulness as compared with the preceding quarter. This general statement applies to all the industrial cities. Changes in retail prices have been slight, although a downward movement is noted as compared with May. An exception should be made in the case of flour which shows a

marked decline, approximately \$2.50 per barrel. The movement in retail prices since May 21, in other staple articles is indicated in the following: Lard, decrease, one cent per pound; beef, advance, one-half a cent per pound; pork (salt), decrease, one-half to three-quarters of a cent per pound; fresh pork, ham, and bacon, decrease, one cent per pound; pork shoulders, decrease, one-half a cent per pound; eggs, decrease, five cents per dozen; canned goods, decrease, two to three cents per can. Vegetables, due to the season, are of course much cheaper during the summer than in the spring. Cotton cloths, prints, etc., are slightly lower. Boots and shoes have not changed in price, although owing to the advance in price of stock quality has in some grades been cheapened to meet the increased cost.

In Boston, retail trade, for household consumption, has not materially changed since May. In Brockton, demand in the grocery trade has, generally speaking, been normal for the season, although a few concerns report a considerable increase over the corresponding months in 1897. Provision stores report business as rather better than last year, or than in the spring. Sales in the clothing trade for the summer show slight gains over last year, but the trade for the summer months would naturally fall behind that for the spring, and the same remark applies to the retail trade in boots and shoes and dry goods. On the whole, demand has been fairly good in all these lines. In Fall River, the retail trade for domestic consumption among wage earners has been fair during the summer months, and about the same in volume as for the same months in 1897, although less than during the spring months. In New Bedford, while the severe strike which occurred in the early part of the year disturbed trade, it is now found to have resumed its normal condition, presenting a marked improvement over the spring months, during which many people were unemployed. The changes in prices of commodities follow almost exactly the changes in other cities above outlined. In Worcester, Springfield, Holyoke, and Chicopee, demand from the operative class is reported by the retail dealers to have been normal during the season. Prices of household commodities range somewhat lower than in the eastern part of the State. In Lawrence, while the larger retail grocery concerns report trade as normal and equal in volume to that of last summer, the smaller establishments declare that the summer trade has been less than usual, and that payments, where credit is given, are very slow in coming in. A similar statement applies to the meat and provision trade and to bakeries. Retail clothing, dry goods, and boot and shoe stores, having large dealings among the operatives, quite generally report the summer trade as unusually dull. A decline in quality in certain manufactured articles is noted, corresponding to the increase in cost of material, the selling price of the article remaining unchanged. In consequence of the decline in flour, the weight of bakers' loaves has been increased. Generally, the

retail trade in Lynn is reported better than usual, although the city presents no exception to the general dulness during the summer as compared with the spring months. The same conditions as to prices of commodities are found here, as elsewhere. The same remarks apply to Peabody. In Haverhill, retailers in the grocery and provision trade report that trade for the summer has been rather less than in 1897. Customers during the summer are somewhat slow in making payments, where credit is given, on account of the lack of employment. The general decline in flour and breadstuffs is noted here, but meats have advanced a little.

To summarize, the reports by industries indicate a decline in the number employed for the last week in the present quarter as compared with the preceding quarter in the following: Boots and Shoes; Clothing; Cotton Goods; Leather; Metals and Metallic Goods; Musical Instruments and Materials; and Worsted Goods. The largest percentage of decline, 23.13 per cent, is found in Clothing, and is mainly due to seasonal depression, usual in this industry. The statement as to seasonal depression accounts also for much of the decline in the other industries. The percentages of decrease in employment are slight in Cotton Goods and Metals and Metallic Goods, and range in the other industries (except Clothing) from 5.21 in Boots and Shoes to 7.85 per cent in Musical Instruments and Materials.

The following industries show a gain in numbers employed, the comparison as before turning on the last weeks in each quarter respectively: Building; Cooking, Lighting, and Heating Apparatus; Liquors and Beverages (not spirituous); Liquors: Malt, Distilled, and Fermented; Machines and Machinery; Paper; Printing, Publishing, and Bookbinding; Print Works, Dye Works, and Bleacheries; and Woollen Goods. The gains in these industries more than offset the losses in others. Thus firms which employed 68,465 persons for the last week of the previous quarter carried upon the rolls 68,806 for the corresponding week in the quarter covered by this report, a gain of half of one per cent; the weekly payroll declining, however, from \$542,863 to \$536,034, a decrease of 1.26 per cent.

By cities, the comparison of corresponding weeks in this and the previous quarter shows a larger number employed in Boston, Brockton, Chicopee, Lawrence, New Bedford, and Peabody; while a smaller number appears in Cambridge, Fall River, Haverhill, Holyoke, Lowell, Lynn, Woburn, and Worcester. In Boston, Chicopee, Fall River, and Holyoke the changes in employment were very slight. So far as can be determined from the returns a larger amount was disbursed in wages in Boston, Brockton, Lawrence, New Bedford, and Peabody; and a smaller amount in the other cities previously named.

In general, the diminished employment and earnings are due to the dulness which is usually found in many industries during the summer and vacation period as compared with the spring months.

THE OPENING FOR AMERICAN COTTONS IN INDIA AND CHINA.

The present condition of the cotton industry in Massachusetts renders any facts bearing upon the possibility of extending our export trade in cotton fabrics timely and pertinent.

Mr. Patterson, Consul-General of the United States at Calcutta has recently reported to the Department of State the following statistical details relative to the importation of cotton goods into British India.

The total imports of cotton goods for the year 1896-97 amounted to 1,976,990,000 yards, comprising the following :

KIND OF GOODS.	Yards Imported During Year
Total gray unbleached,	1,222,820,000
Jaconets,	96,189,000
Mulls,	20,211,000
Print, cloth,	959,000
Shirtings,	581,226,000
Madapollams,	31,337,000
T.cloth and domestics,	13,058,000
Jeans, sheetings, and drills,	22,594,000
Chadars, dhutis, saris, and scarves,	455,220,000
Total white bleached,	414,154,000
Jaconets,	33,057,000
Naiusooks,	119,890,000
Mulls,	84,980,000
Shirtings,	69,751,000
Long cloths,	2,278,000
Cambrics, twills, muslins, and lawns,	12,044,000
Chadars, dhutis, saris, and scarves,	53,172,000
Total colored, printed, and dyed,	339,916,000
Jaconets,	5,187,000
Mulls,	4,872,000
Prints and chintzes,	129,702,000
Shirtings,	45,060,000
Drills,	5,259,000
Cambrics, twills, and muslin,	74,757,000
Chadars, dhutis, saris, and scarves,	29,459,000

Goods made of medium counts, say from 30s to 40s, constituted 97 per cent of the whole imports for the year, the shirtings, chadars, dhutis, saris, and scarves forming 84.70 per cent and the jaconets, mulls, and madapollams, 12.10 per cent. Nearly all the imports were from the United Kingdom, namely, 99.50 per cent of the gray goods; 99.10 per cent of the white; and 97.90 per cent of the colored. The small balance came from the Continent and the United States. Mr. Patterson closes his report with the following practical suggestions :

Besides the three great classes of piece goods — gray, white, and colored — referred to above, the other kinds of cotton manufactures imported are chiefly handkerchiefs and shawls in the piece, lace and patent net, hosiery and sewing thread.

Calcutta is the great distributing point for Bengal, which imports more than all other provinces together, including Burma.

It is impossible to give the manufacturers' prices and the retail prices, there being so many different qualities of the same class of goods.

The transportation charges can be ascertained from Messrs. Bucknall Bros., New York agents of the line of steamships that has recently been established between New York and Calcutta, with monthly sailings, touching at Bombay. This line will save trans-shipment of goods from the United States, and should greatly reduce the cost of transportation, besides facilitating trade by saving time.

The duty on all cotton goods is $3\frac{1}{2}$ per cent *ad valorem*.

Cotton goods are imported in bales and cases. Gray goods generally are packed in bales; bleached goods and fancy styles in cases.

The following are the principal importers of cotton goods in Calcutta: Ralli Bros., Graham & Co.; Gladstone, Wyllie & Co.; George Henderson & Co.; Andrew Yule & Co.; Duncan Bros. & Co.; Ernsthausen, Limited; Jules Karpeles & Co.; E. D. Sassoon & Co.; Hoare, Miller & Co.; Finlay, Muir & Co.; and Ewing & Co.

I trust that the attention of our cotton manufacturers may be attracted to India as a market for their goods.

When it is considered that there are nearly 250,000,000 people in this country, whose principal clothing is cotton, the possibilities for extension of trade are obvious. American goods have a good reputation here, being made from a superior quality of cotton, and with competent active agents in the field to ascertain just the styles of goods required, I have no doubt that our manufacturers would successfully compete with those of the United Kingdom, who now practically control the market.

About the same time, Mr. Goodnow, Consul-General at Shanghai submitted a report on Cotton in China. This, like the other, was prepared in reply to a special request from this country, reflecting an interest in the subject here. The main points covered by Mr. Goodnow relate to the production of raw cotton, facilities for the manufacture of fabrics, and wages.

He estimates, in the absence of statistics, the annual production of cotton in the vicinity of Shanghai or tributary thereto, at 160,000,000 pounds, with a probable total of 666,000,000 pounds in all parts of China; but any such estimate he regards as but guesswork owing to lack of definite data.

The amount imported is small, and as far as America is concerned limited to a few bales used experimentally in Shanghai within the last two years. The American cotton is not so white as the native, but has a longer fibre, and will therefore make finer yarn. The Chinese demand is for coarse yarn, No. 20 and coarser.

Mr. Goodnow puts the number of spindles operating in Shanghai and vicinity at 420,000, of which 35,000 have been running from eight to 10 years. The others have been added since the war with Japan, and while no new mills are building it is proposed to add 50,000 spindles soon. There are 80,000 spindles operating at Wuchang, 30,000 for eight years and the others added within a year.

On the prospect of a market for American cotton, and with respect to wages and the use of machinery in China, Mr. Goodnow says :

The prospect of a market for American cotton depends entirely on the price at which it can be laid down here. At the present moment the price for native cotton is high. Growers and dealers are holding back the crop, on the theory that the mills must use the Chinese cotton. Practically, the crop is "cornered." Sixteen taels (\$10.65 gold) per picul (133½ pounds) have been paid for cotton delivered at the Shanghai mills. It has been sold as low as 10½ taels per picul. The average price for the last three years has been 12 taels per picul (§8 gold per 133½ pounds). American cotton may, after its superiority is fully demonstrated, bring 1 to 2 taels (62 cents to \$1.24) per picul more than the Chinese product; but, until the natural prejudice in favor of the home product is overcome, it is not safe to ask more than the price of Chinese cotton.

In the mills here the average wage is 25 to 30 Mexican cents (10.6 to 13.3 cents United States) per day, and two-thirds of the employees are women. It is not to be assumed, however, that production is cheap in proportion to the low wages. One American will attend to as much machinery as three Chinese. Nor will the native workmen push machinery as we do. They are careless as well, and much time and money are lost in repairs. While the hours of work are long, the Chinese do not work consecutively and steadily. I might say without much exaggeration that a working day in China is divided equally between work, singing, gossiping, and eating. The small-footed women, when employed in factories, must sit down often to rest their maimed feet. The larger-footed women working with them demand equal rest. Altogether, the lot of an energetic foreigner who has charge of a Chinese factory is not a happy one, and the cost of production is not cheap in proportion to the day's wages.

PRODUCTIVE CONDITIONS IN THE PHILIPPINES.

Considerable discussion is caused by the present status of the Philippines. The fear is expressed that immigration, following annexation, may injuriously affect the American workingman. At present, of course, it is impossible to predict the course of events, although if colonial expansion is to be our policy, it is still within the power of Congress to enact such legislation for the government of the colonies as may be necessary to guard the interests of our industrial population. The facts relative to the condition of the inhabitants of the Philippines, and as to its industries, imports, and exports should, however, be carefully studied. We have collated from recent Consular reports, and briefly summarize information which we think of interest to Massachusetts manufacturers and employés.

There is a good market in the Philippines for inexpensive jewelry such as is manufactured in the Attleboroughs. At present the profits in this direction are enormous. A large margin of profit is found in many other lines. Textiles of cotton, silk, linen, etc., find a market if adapted to the taste of the inhabitants. Shoes are an important item of importation, and, as indicating the market, the following table is introduced, showing the different kinds and value of such imports into the Philippines in 1894; also the several countries participating in the trade :

Boots and Shoes Imported into the Philippines in 1894.

COUNTRIES FROM WHICH IMPORTED.	LEATHER AND CANVAS		PATENT LEATHER AND CALFSKIN		SLIPPERS AND COMMON SHOES		FOOT WEAR FOR CHILDREN	
	Pairs	Value	Pairs	Value	Pairs	Value	Pairs	Value
Spain,	8,955	\$9,337	50,324	\$29,511	3,887	\$1,041	60,816	\$19,954
Germany,	2,441	2,580	13,113	8,935	1,594	411	2,928	1,135
Austria,	-	-	45	30	-	-	-	-
China,	72	74	4,013	2,742	14,712	4,101	40	20
Egypt,	149	149	570	380	-	-	46	20
France,	505	519	4,730	3,238	906	231	2,694	932
England,	425	455	8,437	5,946	4,933	1,267	3,152	1,053
Japan,	-	-	3	2	155	41	-	-
Switzerland,	9	10	9	12	-	-	-	-
Singapore,	-	-	-	-	344	87	-	-
TOTALS,	12,556	\$13,204	81,244	\$50,796	26,531	\$7,179	69,676	\$23,114

It will be seen that the United States does not appear in this table. The trade has been mainly controlled by Spain, under the protection of laws which discriminate against all foreign products. Massachusetts, being largely interested in this industry, might under certain conditions develop an important export trade to the Islands.

The following table shows the exports from the United States to the Philippines from 1892 to 1897:

Value of Domestic Merchandise Exported to the Philippines.

ARTICLES.	1892	1893	1894	1895	1896	1897
Cotton, manufactures of	\$6,483	\$8,444	\$45,761	\$3,355	\$9,714	\$2,164
Oils, mineral, refined	43,001	105,936	35,495	67,837	89,958	45,908
Varnish,	1,530	2,442	191	2,605	1,500	2,239
All other articles,	9,900	37,556	64,019	45,458	*61,274	44,286
TOTALS,	\$60,914	\$154,378	\$145,466	\$119,255	\$162,446	\$94,597

* Includes \$105 of foreign merchandise.

We also introduce a table showing the principal annual imports into the Philippines, and the countries from whence imported.

Value of Principal Annual Imports into the Philippines.

ARTICLES.	COUNTRIES FROM WHENCE IMPORTED					TOTAL
	United States	Great Britain	France	Germany	Japan	
Cotton, manufactures of	\$2,164	\$1,268,087	\$143,223	\$111,028	\$120	\$1,524,622
Silk, manufactures of	-	12,205	81,720	43,792	4,418	142,135
Woolen, manufactures of	-	17,943	2,493	44,268	-	64,704
Apparel,	-	6,273	3,912	99,246	157	109,588
Machinery,	-	151,630	10,353	29,036	250	191,269
Metals and metallic goods,	-	185,413	5,035	146,370	398	337,216
Coal,	-	16,856	-	-	40,996	57,852
Provisions,	-	79,455	-	31,654	7,429	118,538
All other articles,	92,433	325,736	113,060	269,534	39,055	*6,628,169
TOTAL VALUE OF ALL IMPORTS INTO THE PHILIPPINES,	\$94,597	\$2,063,598	\$359,796	\$774,928	\$92,823	\$9,174,093

* Includes value of all other articles from all other countries.

The soil is wonderfully productive, but lacks intelligent cultivation. It is stated that with proper supervision, under the fostering influence of a stable government, the natives could easily be taught better methods, and remain self-supporting and independent in their own land without any desire to emigrate. Tobacco is largely cultivated and would, of itself, yield large revenues to the Islands. Many establishments are already engaged in manufacturing, however, or were so engaged previous to the late war. Two of these, considered the most important, employ between 5,000 and 6,000 workmen. Besides numerous tobacco factories, there are in Manila rice factories, sugar mills, distilleries, rope walks, carriage factories, soap works, brick yards, saw mills, printing establishments, as well as repair shops and the numerous small industries which are usually found in cities. A cotton mill of 6,000 spindles is in course of erection. The following special textiles are in demand: Bleached and unbleached shirtings and drills; colored prints, 24 inches wide, with red ground, and fancy crimps; ginghams and chellass for bed coverings, in large patterns, with red ground, some with yellow and blue squares, and some with indigo ground, or in green, in pieces of 24 yards; cotton cassinettes, in light weight and double width, for trousers; handkerchiefs, 17 by 18 inches and 22 by 22 inches, white, or white with colored borders; black cotton zanelas, 18½ inches wide; aniline black satins, in 45-inch goods; woven cotton underwear and white cotton bed quilts; men's cotton socks, 9 to 11, and ladies' cotton hose, 8 to 9½. Other articles in good demand are low-priced sewing machines, carriages and parts, enameled ware for cooking utensils, and American clocks. Hemp, tobacco, and sugar are the principal articles of export, and under proper conditions the present values could be more than doubled.

The following table exhibits the value of the principal annual exports, and the country to which sent:

Value of Principal Annual Exports from the Philippines.

COUNTRIES TO WHICH EXPORTED.	Hemp	Tobacco	Sugar	All Other Articles	Total
United States,	\$2,701,651	-	\$1,199,202	\$482,887	\$4,383,740
Great Britain,	3,694,214	\$716,767	1,512,703	299,742	6,223,426
France,	76,754	86,451	-	1,827,092	1,990,297
Germany,	166,600	31,654	-	25,466	223,720
Japan,	100,993	64,477	1,156,411	10,419	1,332,300
Spain,	-	2,533,150	413,794	1,872,400	4,819,344

For the quarter ending March 31, 1898, the exports from Manila to the United States aggregated \$566,848.58, including hemp, \$554,194.71; hats, \$9,220.87; hide cuttings, \$2,892.34; and leaf tobacco, \$540.66.

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LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 9.

JANUARY.

1899.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDGIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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MASSACHUSETTS LABOR BULLETIN.

No. 9.

JANUARY.

1899.

COMPARATIVE POSITION OF BOSTON WAGES. 1870-1898.

The United States Department of Labor has recently secured from original sources statistics of wages in certain skilled trades, as paid in the leading cities of the United States and some of the industrial centres of Europe, in various years beginning with 1870 and ending with 1898. We have extracted the figures relating to the city of Boston, and in this article put them in direct comparison with an average derived from the returns received from 12 cities in the United States (including Boston), and with the parallel quotations from foreign sources. The tables require no other preliminary introduction.

Comparative Daily Wages: By Occupations. From Home and Foreign Sources. 1870-1898.

OCCUPATIONS, CITIES, AND COUNTRIES.	1870	1880	1890	1893	1895	1896	1897	1898
Blacksmiths.								
Boston,	\$3.00 $\frac{1}{4}$	\$2.94 $\frac{1}{4}$	\$2.80 $\frac{1}{4}$	\$2.78 $\frac{1}{2}$	\$2.75 $\frac{3}{4}$	\$2.75	\$2.76	\$2.76
Average (12 U. S. cities),	2.43	2.59 $\frac{3}{4}$	2.63 $\frac{1}{4}$	2.59 $\frac{1}{4}$	2.47	2.44 $\frac{1}{2}$	2.41	2.43 $\frac{1}{2}$
London,	-	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.62 $\frac{1}{4}$	1.62 $\frac{1}{4}$	1.62 $\frac{1}{4}$	-	-
Manchester (Eng.),	1.29 $\frac{3}{4}$	1.38	1.38	1.38	1.38	1.46	-	-
Glasgow,	1.09 $\frac{1}{2}$	1.21 $\frac{3}{4}$	1.25 $\frac{3}{4}$	1.41	1.44	1.48	-	-
Great Britain (average),	1.19 $\frac{3}{4}$	1.38	1.39 $\frac{1}{4}$	1.47	1.48	1.52	-	-
Paris,	1.19 $\frac{1}{2}$	1.30 $\frac{1}{2}$	1.56 $\frac{1}{2}$	1.56 $\frac{1}{2}$	1.71 $\frac{1}{2}$	1.71 $\frac{1}{2}$	-	-
Liege,	0.68 $\frac{1}{2}$	0.75 $\frac{1}{4}$	0.78 $\frac{3}{4}$	0.87 $\frac{1}{4}$	0.82 $\frac{1}{2}$	0.89 $\frac{1}{4}$	-	-
Blacksmiths' Helpers.								
Boston,	1.56	1.57 $\frac{3}{4}$	1.86 $\frac{3}{4}$	1.88 $\frac{1}{2}$	1.82 $\frac{3}{4}$	1.83 $\frac{1}{4}$	1.84	1.84
Average (12 U. S. cities),	1.40 $\frac{1}{4}$	1.51 $\frac{1}{4}$	1.58	1.55 $\frac{3}{4}$	1.49 $\frac{1}{4}$	1.50 $\frac{3}{4}$	1.50 $\frac{1}{4}$	1.52 $\frac{1}{4}$
Manchester (Eng.),	0.81 $\frac{1}{4}$	0.85 $\frac{1}{4}$	0.85 $\frac{1}{4}$	0.85 $\frac{1}{4}$	0.85 $\frac{1}{4}$	0.93 $\frac{1}{4}$	-	-
Glasgow,	0.73	0.75	0.81 $\frac{1}{4}$	0.81 $\frac{1}{4}$	0.85 $\frac{1}{4}$	0.85 $\frac{1}{4}$	-	-
Great Britain (average),	0.77 $\frac{3}{4}$	0.80 $\frac{1}{4}$	0.83 $\frac{1}{4}$	0.83 $\frac{1}{4}$	0.85 $\frac{1}{4}$	0.89 $\frac{1}{4}$	-	-
Paris,	0.78 $\frac{1}{2}$	0.82 $\frac{1}{2}$	0.98 $\frac{1}{4}$	0.98 $\frac{1}{4}$	0.99 $\frac{1}{2}$	0.99 $\frac{1}{2}$	-	-
Liege,	0.53 $\frac{1}{4}$	0.51 $\frac{3}{4}$	0.47 $\frac{3}{4}$	0.52	0.52 $\frac{1}{4}$	0.53	-	-
Boiler Makers.								
Boston,	2.15 $\frac{1}{4}$	2.28 $\frac{3}{4}$	2.56 $\frac{1}{4}$	2.37 $\frac{1}{2}$	2.47 $\frac{1}{2}$	2.45	2.47 $\frac{3}{4}$	2.48
Average (11 U. S. cities),	2.35 $\frac{3}{4}$	2.59 $\frac{3}{4}$	2.64 $\frac{1}{2}$	2.58	2.54 $\frac{3}{4}$	2.55 $\frac{1}{2}$	2.54	2.56 $\frac{1}{2}$
Paris,	1.35	1.48 $\frac{1}{2}$	1.64	1.64	1.64	1.64	-	-
Liege,	-	0.73 $\frac{3}{4}$	0.74 $\frac{1}{4}$	0.75	0.74 $\frac{3}{4}$	0.75	-	-

*Comparative Daily Wages: By Occupations. From Home and Foreign Sources.
1870-1898 — Continued.*

OCCUPATIONS, CITIES, AND COUNTRIES.	1870	1880	1890	1893	1895	1896	1897	1898
Boiler Makers' Helpers.								
Boston,	\$1.29 $\frac{1}{4}$	\$1.37 $\frac{3}{4}$	\$1.49 $\frac{1}{4}$	\$1.43	\$1.43 $\frac{3}{4}$	\$1.46 $\frac{1}{2}$	\$1.46 $\frac{1}{2}$	\$1.46 $\frac{3}{4}$
Average (11 U. S. cities), . . .	1.41	1.56 $\frac{1}{4}$	1.57 $\frac{1}{2}$	1.53 $\frac{1}{4}$	1.52 $\frac{3}{4}$	1.53 $\frac{1}{4}$	1.54	1.53 $\frac{3}{4}$
London,	1.21 $\frac{3}{4}$	1.21 $\frac{3}{4}$	1.46	1.46	1.46	1.46	-	-
Manchester (Eng.),	1.29 $\frac{3}{4}$	1.29 $\frac{3}{4}$	1.29 $\frac{3}{4}$	1.29 $\frac{3}{4}$	1.29 $\frac{3}{4}$	1.29 $\frac{3}{4}$	-	-
Great Britain (average),	1.25 $\frac{3}{4}$	1.25 $\frac{3}{4}$	1.38	1.38	1.38	1.38	-	-
Paris,	0.77 $\frac{1}{4}$	0.86 $\frac{1}{2}$	0.96 $\frac{1}{2}$	0.96 $\frac{1}{2}$	0.96 $\frac{1}{2}$	0.96 $\frac{1}{2}$	-	-
Liege,	-	0.62 $\frac{3}{4}$	0.56 $\frac{1}{4}$	0.62 $\frac{3}{4}$	0.60	0.64 $\frac{1}{4}$	-	-
Bricklayers.								
Boston,	3.33 $\frac{1}{4}$	2.59	3.65 $\frac{1}{4}$	3.75	3.33 $\frac{1}{2}$	3.29 $\frac{1}{2}$	3.45 $\frac{1}{4}$	3.40 $\frac{1}{2}$
Average (11 U. S. cities),	3.15 $\frac{1}{4}$	3.18 $\frac{1}{2}$	4.13	4.12 $\frac{1}{4}$	4.02 $\frac{1}{2}$	3.82 $\frac{3}{4}$	3.73 $\frac{1}{2}$	3.51 $\frac{3}{4}$
London,	1.53	1.59 $\frac{1}{4}$	1.59 $\frac{1}{4}$	1.60 $\frac{1}{2}$	1.60 $\frac{1}{2}$	1.68 $\frac{1}{4}$	-	-
Manchester (Eng.),	1.65 $\frac{3}{4}$	1.56 $\frac{3}{4}$	1.56 $\frac{3}{4}$	1.65 $\frac{3}{4}$	1.74 $\frac{1}{4}$	1.84	-	-
Glasgow,	1.13 $\frac{1}{2}$	1.21 $\frac{1}{4}$	1.46 $\frac{1}{4}$	1.55 $\frac{1}{4}$	1.55 $\frac{1}{4}$	1.55 $\frac{1}{4}$	-	-
Great Britain (average),	1.44	1.46	1.54 $\frac{1}{2}$	1.60 $\frac{1}{2}$	1.63 $\frac{1}{2}$	1.69 $\frac{1}{4}$	-	-
Paris,	1.06 $\frac{1}{4}$	1.64	1.64	1.64	1.64	1.64	-	-
Cabinet Makers.								
Boston,	2.47	2.13 $\frac{1}{2}$	2.55 $\frac{3}{4}$	2.49 $\frac{1}{2}$	2.50 $\frac{1}{4}$	2.52 $\frac{1}{4}$	2.53 $\frac{1}{2}$	2.62 $\frac{1}{4}$
Average (10 U. S. cities),	2.14	2.28 $\frac{1}{4}$	2.44 $\frac{1}{4}$	2.39 $\frac{1}{4}$	2.31 $\frac{1}{4}$	2.35 $\frac{3}{4}$	2.32 $\frac{1}{2}$	2.29 $\frac{3}{4}$
London,	1.22 $\frac{1}{2}$	1.64 $\frac{1}{4}$	1.64 $\frac{1}{4}$	1.64 $\frac{1}{4}$	1.64 $\frac{1}{4}$	1.68 $\frac{1}{2}$	-	-
Manchester (Eng.),	1.37 $\frac{1}{4}$	1.37 $\frac{1}{4}$	1.37 $\frac{1}{4}$	1.37 $\frac{1}{4}$	1.37 $\frac{1}{4}$	1.37 $\frac{1}{4}$	-	-
Great Britain (average),	1.30	1.50 $\frac{3}{4}$	1.50 $\frac{3}{4}$	1.50 $\frac{3}{4}$	1.50 $\frac{3}{4}$	1.53	-	-
Paris,	1.28 $\frac{1}{4}$	1.44 $\frac{3}{4}$	1.65 $\frac{1}{2}$	1.65 $\frac{1}{2}$	1.65 $\frac{1}{2}$	1.65 $\frac{1}{2}$	-	-
Liege,	0.67 $\frac{1}{2}$	0.67 $\frac{1}{2}$	0.67 $\frac{1}{2}$	0.70 $\frac{3}{4}$	0.70 $\frac{3}{4}$	0.70 $\frac{3}{4}$	-	-
Carpenters.*								
Boston,	2.13 $\frac{1}{4}$	2.29 $\frac{1}{4}$	2.52	2.52	2.47 $\frac{1}{4}$	2.46	2.54	2.54
Average (12 U. S. cities),	2.36 $\frac{3}{4}$	2.37 $\frac{1}{4}$	2.59 $\frac{1}{4}$	2.67	2.55 $\frac{3}{4}$	2.52	2.56 $\frac{3}{4}$	2.52 $\frac{3}{4}$
London,	1.53	1.59 $\frac{3}{4}$	1.59 $\frac{3}{4}$	1.60 $\frac{1}{2}$	1.60 $\frac{1}{2}$	1.68 $\frac{3}{4}$	-	-
Manchester (Eng.),	1.34	1.47 $\frac{1}{2}$	1.49 $\frac{1}{2}$	1.49 $\frac{1}{2}$	1.50 $\frac{1}{2}$	1.50 $\frac{1}{2}$	-	-
Glasgow,	1.12 $\frac{3}{4}$	1.12 $\frac{3}{4}$	1.38 $\frac{1}{4}$	1.46 $\frac{1}{4}$	1.46 $\frac{1}{4}$	1.55 $\frac{1}{4}$	-	-
Great Britain (average),	1.33 $\frac{1}{4}$	1.40	1.49 $\frac{1}{4}$	1.52 $\frac{1}{4}$	1.52 $\frac{1}{4}$	1.58 $\frac{1}{4}$	-	-
Paris,	1.20 $\frac{1}{4}$	1.37 $\frac{3}{4}$	1.55 $\frac{3}{4}$	1.55 $\frac{3}{4}$	1.55 $\frac{3}{4}$	1.55 $\frac{3}{4}$	-	-
Liege,	-	-	0.78 $\frac{1}{2}$	0.79 $\frac{1}{2}$	0.79	0.81	-	-
Compositors.								
Boston,	2.26 $\frac{1}{4}$	2.57 $\frac{1}{4}$	2.65 $\frac{1}{2}$	2.66 $\frac{1}{2}$	2.60 $\frac{3}{4}$	2.63 $\frac{3}{4}$	2.63 $\frac{1}{2}$	2.62 $\frac{3}{4}$
Average (11 U. S. cities),	2.52 $\frac{1}{4}$	2.77 $\frac{1}{2}$	2.79 $\frac{3}{4}$	2.77 $\frac{3}{4}$	2.81	2.82 $\frac{1}{2}$	2.80	2.81 $\frac{1}{2}$
London,	1.46	1.46	1.46	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	-	-
Manchester,	1.21 $\frac{3}{4}$	1.42	1.42	1.42	1.42	1.42	-	-
Glasgow,	1.11 $\frac{1}{2}$	1.31 $\frac{3}{4}$	1.31 $\frac{3}{4}$	1.38	1.38	1.38	-	-
Great Britain (average),	1.26 $\frac{1}{2}$	1.40	1.40	1.44 $\frac{3}{4}$	1.44 $\frac{3}{4}$	1.44 $\frac{3}{4}$	-	-
Paris,	1.15 $\frac{3}{4}$	1.25 $\frac{1}{2}$	1.25 $\frac{1}{2}$	1.25 $\frac{1}{2}$	1.25 $\frac{1}{2}$	1.25 $\frac{1}{2}$	-	-
Liege,	0.64	0.72 $\frac{1}{2}$	0.78 $\frac{3}{4}$	0.76 $\frac{1}{4}$	0.79 $\frac{1}{2}$	0.79 $\frac{3}{4}$	-	-
Hod Carriers.								
Boston,	1.77 $\frac{1}{4}$	1.95	2.05 $\frac{1}{4}$	2.22	2.00	1.98 $\frac{1}{2}$	2.00	1.96 $\frac{3}{4}$
Average (11 U. S. cities),	1.75 $\frac{1}{4}$	1.82 $\frac{3}{4}$	2.21 $\frac{1}{4}$	2.18 $\frac{3}{4}$	2.06 $\frac{1}{4}$	2.00	2.03	2.00 $\frac{1}{2}$
Paris,	0.67 $\frac{1}{2}$	0.86 $\frac{3}{4}$	1.06 $\frac{1}{4}$	1.06 $\frac{1}{4}$	1.06 $\frac{1}{4}$	1.06 $\frac{1}{4}$	-	-
Liege,	-	-	0.48 $\frac{1}{2}$	0.49 $\frac{1}{2}$	0.51	0.47 $\frac{1}{2}$	-	-
Iron Moulders.								
Boston,	3.48 $\frac{3}{4}$	2.43 $\frac{3}{4}$	2.46 $\frac{3}{4}$	2.50	2.29 $\frac{1}{2}$	2.24 $\frac{3}{4}$	2.53 $\frac{1}{2}$	2.58
Average (10 U. S. cities),	2.60 $\frac{1}{2}$	2.56 $\frac{3}{4}$	2.68 $\frac{1}{2}$	2.67	2.58	2.55 $\frac{3}{4}$	2.59 $\frac{1}{4}$	2.60 $\frac{1}{2}$
London,	1.46	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.62 $\frac{1}{4}$	-	-
Manchester (Eng.),	1.46	1.46	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.58 $\frac{1}{4}$	-	-
Great Britain (average),	1.46	1.50 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.50 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.60 $\frac{1}{4}$	-	-
Paris,	1.23	1.28 $\frac{3}{4}$	1.30 $\frac{3}{4}$	1.38 $\frac{1}{4}$	1.37 $\frac{1}{4}$	1.39 $\frac{1}{4}$	-	-
Liege,	0.72 $\frac{1}{2}$	0.76	0.70	0.70 $\frac{1}{2}$	0.75 $\frac{3}{4}$	0.79 $\frac{3}{4}$	-	-

* In Great Britain and Belgium joiners are included in carpenters.

*Comparative Daily Wages: By Occupations. From Home and Foreign Sources.
1870-1898—Concluded.*

OCCUPATIONS, CITIES, AND COUNTRIES.	1870	1880	1890	1893	1895	1896	1897	1898
Iron Moulders' Helpers.								
Boston,	\$1.65	\$1.67 $\frac{3}{4}$	\$1.68 $\frac{1}{4}$	\$1.70 $\frac{3}{4}$	\$1.53	\$1.55 $\frac{3}{4}$	\$1.54 $\frac{1}{4}$	\$1.61 $\frac{1}{2}$
Average (10 U. S. cities), . . .	1.53	1.61 $\frac{1}{4}$	1.60	1.62 $\frac{1}{4}$	1.56	1.57 $\frac{3}{4}$	1.57 $\frac{1}{2}$	1.58 $\frac{1}{4}$
Paris,	0.81 $\frac{3}{4}$	0.87 $\frac{1}{2}$	0.92	0.93 $\frac{1}{2}$	0.92 $\frac{1}{2}$	0.93 $\frac{1}{4}$	-	-
Liege,	0.49 $\frac{3}{4}$	0.50 $\frac{3}{4}$	0.52 $\frac{3}{4}$	0.50 $\frac{1}{4}$	0.51 $\frac{1}{2}$	0.51	-	-
Machinists.								
Boston,	2.47 $\frac{1}{4}$	2.42 $\frac{1}{2}$	2.57 $\frac{1}{2}$	2.72 $\frac{1}{2}$	2.57 $\frac{1}{2}$	2.50	2.62 $\frac{1}{2}$	2.57 $\frac{1}{2}$
Average (12 U. S. cities), . . .	2.30 $\frac{1}{4}$	2.44 $\frac{1}{4}$	2.51 $\frac{1}{4}$	2.48 $\frac{1}{2}$	2.38	2.40 $\frac{1}{2}$	2.42	2.41
London,	1.46	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	-	-
Manchester (Eng.),	1.21 $\frac{3}{4}$	1.29 $\frac{3}{4}$	1.38	1.38	1.38	1.46	-	-
Great Britain (average), . . .	1.34	1.42	1.46 $\frac{1}{4}$	1.46 $\frac{1}{4}$	1.46 $\frac{1}{4}$	1.50 $\frac{1}{4}$	-	-
Paris,	1.33 $\frac{1}{4}$	1.34 $\frac{3}{4}$	1.35 $\frac{3}{4}$	1.42	1.38	1.38	-	-
Liege,	0.65 $\frac{3}{4}$	0.62 $\frac{1}{4}$	0.66 $\frac{1}{4}$	0.68 $\frac{1}{4}$	0.72 $\frac{3}{4}$	0.68 $\frac{1}{4}$	-	-
Machinists' Helpers.								
Boston,	1.15 $\frac{1}{2}$	1.50	1.52 $\frac{1}{2}$	1.27 $\frac{1}{2}$	1.60	1.57 $\frac{1}{2}$	1.65	1.70
Average (11 U. S. cities), . . .	1.34	1.43 $\frac{1}{2}$	1.43 $\frac{1}{4}$	1.39 $\frac{1}{4}$	1.37	1.33 $\frac{1}{2}$	1.34 $\frac{1}{2}$	1.35 $\frac{1}{2}$
Paris,	0.78	0.88 $\frac{1}{2}$	0.99	0.97	0.98 $\frac{1}{4}$	0.98 $\frac{1}{4}$	-	-
Liege,	0.48 $\frac{1}{4}$	0.50 $\frac{1}{4}$	0.47 $\frac{3}{4}$	0.50 $\frac{3}{4}$	0.51 $\frac{1}{2}$	0.51 $\frac{1}{2}$	-	-
Painters (House).								
Boston,	2.26 $\frac{3}{4}$	2.18 $\frac{1}{4}$	2.52	2.52	2.58 $\frac{3}{4}$	2.64 $\frac{1}{4}$	2.63 $\frac{1}{4}$	2.85 $\frac{3}{4}$
Average (12 U. S. cities), . . .	2.22 $\frac{1}{2}$	2.41 $\frac{1}{2}$	2.59 $\frac{1}{2}$	2.69	2.60 $\frac{1}{4}$	2.58 $\frac{3}{4}$	2.57 $\frac{1}{4}$	2.60
London,	1.43 $\frac{1}{2}$	1.51	1.51	1.48	1.48	1.48	-	-
Manchester (Eng.),	1.29 $\frac{1}{2}$	1.29 $\frac{1}{2}$	1.29 $\frac{1}{2}$	1.36 $\frac{1}{2}$	1.36 $\frac{1}{2}$	1.40 $\frac{3}{4}$	-	-
Glasgow,	1.19	1.23 $\frac{1}{4}$	1.33	1.38 $\frac{1}{4}$	1.38 $\frac{1}{4}$	1.38 $\frac{1}{4}$	-	-
Great Britain (average), . . .	1.30 $\frac{3}{4}$	1.34 $\frac{1}{4}$	1.37 $\frac{3}{4}$	1.41	1.41	1.42 $\frac{1}{4}$	-	-
Paris,	1.06 $\frac{1}{4}$	1.25 $\frac{1}{2}$	1.35	1.35	1.35	1.35	-	-
Liege,	0.55	0.62	0.66 $\frac{1}{4}$	0.66 $\frac{1}{2}$	0.66 $\frac{1}{2}$	0.64	-	-
Pattern Makers (Iron Works).								
Boston,	3.50 $\frac{1}{4}$	2.97 $\frac{1}{2}$	3.10	3.27 $\frac{1}{2}$	3.10	2.65	2.75	2.80
Average (11 U. S. cities), . . .	2.70	2.82	2.98	2.96 $\frac{1}{4}$	2.90 $\frac{1}{2}$	2.82 $\frac{3}{4}$	2.82 $\frac{1}{4}$	2.90
Manchester (Eng.),	1.46	1.46	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.58 $\frac{1}{4}$	-	-
Great Britain (average), . . .	1.46	1.46	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.54 $\frac{1}{4}$	1.58 $\frac{1}{4}$	-	-
Paris,	1.21 $\frac{3}{4}$	1.32 $\frac{3}{4}$	1.31 $\frac{1}{4}$	1.33	1.33 $\frac{1}{4}$	1.33 $\frac{1}{4}$	-	-
Liege,	0.66 $\frac{3}{4}$	0.70 $\frac{1}{2}$	0.77 $\frac{1}{4}$	0.75	0.76	0.77 $\frac{1}{4}$	-	-
Plumbers.								
Boston,	2.88 $\frac{1}{2}$	2.65 $\frac{3}{4}$	3.18 $\frac{3}{4}$	3.30 $\frac{1}{2}$	3.28	3.30 $\frac{1}{4}$	3.31 $\frac{1}{4}$	3.27 $\frac{1}{4}$
Average (12 U. S. cities), . . .	2.74 $\frac{1}{2}$	2.93 $\frac{1}{2}$	3.13 $\frac{1}{2}$	3.21 $\frac{1}{2}$	3.17 $\frac{1}{4}$	3.17 $\frac{1}{4}$	3.14 $\frac{3}{4}$	3.15 $\frac{1}{2}$
London,	1.43	1.58 $\frac{1}{4}$	1.58 $\frac{1}{4}$	1.66 $\frac{1}{2}$	1.66 $\frac{1}{2}$	1.74 $\frac{1}{4}$	-	-
Great Britain (average), . . .	1.43	1.58 $\frac{3}{4}$	1.58 $\frac{3}{4}$	1.66 $\frac{1}{2}$	1.66 $\frac{1}{2}$	1.74 $\frac{1}{4}$	-	-
Paris,	1.34 $\frac{3}{4}$	1.39	1.39 $\frac{1}{4}$	1.39 $\frac{3}{4}$	1.39 $\frac{1}{2}$	1.42	-	-
Liege,	-	0.72	0.79 $\frac{1}{4}$	0.72 $\frac{1}{2}$	0.73 $\frac{3}{4}$	0.77 $\frac{1}{4}$	-	-
Stonecutters.								
Boston,	3.37 $\frac{1}{2}$	2.58 $\frac{1}{4}$	3.32 $\frac{1}{4}$	2.76	2.51 $\frac{1}{2}$	2.66 $\frac{1}{4}$	2.82 $\frac{3}{4}$	2.94 $\frac{3}{4}$
Average (11 U. S. cities), . . .	3.07	2.83	3.45 $\frac{1}{4}$	3.45 $\frac{1}{2}$	3.36 $\frac{1}{2}$	3.33 $\frac{1}{4}$	3.30 $\frac{1}{2}$	3.23
Paris,	0.87 $\frac{3}{4}$	1.22 $\frac{3}{4}$	1.50	1.50 $\frac{3}{4}$	1.50	1.50	-	-
Liege,	-	0.72 $\frac{1}{2}$	0.75 $\frac{1}{2}$	0.71	0.78 $\frac{1}{2}$	0.70 $\frac{1}{4}$	-	-
Teamsters.								
Boston,	1.62 $\frac{1}{2}$	1.84 $\frac{1}{4}$	2.06	2.04 $\frac{1}{4}$	2.01	2.03 $\frac{3}{4}$	1.99 $\frac{3}{4}$	2.09 $\frac{1}{4}$
Average (12 U. S. cities), . . .	1.58 $\frac{3}{4}$	1.88 $\frac{1}{4}$	1.94 $\frac{3}{4}$	1.90 $\frac{1}{2}$	1.90	1.88 $\frac{3}{4}$	1.87 $\frac{3}{4}$	1.88 $\frac{1}{4}$
Paris,	1.18 $\frac{1}{4}$	1.21	1.26 $\frac{3}{4}$	1.26 $\frac{1}{4}$	1.26 $\frac{3}{4}$	1.26 $\frac{1}{4}$	-	-
Liege,	0.55 $\frac{1}{2}$	0.55 $\frac{1}{2}$	0.55 $\frac{1}{2}$	0.55 $\frac{1}{2}$	0.59 $\frac{1}{4}$	0.59 $\frac{1}{4}$	-	-

In reference to the figures it should be explained that, so far as the United States is concerned, they were in most cases taken by agents of the Department directly from the payrolls of establishments which have

done business continuously since 1870, the first year represented; and wherever the original quotations were in currency during years in which gold commanded a premium, they have been reduced to a gold basis in order to eliminate the effect of depreciated paper money.

The occupations are such as may be accurately determined, and admit of comparison on a common basis in each city and in the different countries. The latest foreign quotations are for the year 1896, and for some of the foreign cities, in some of the employments, no quotations appear.

Invariably, the quotations for Boston and the United States are much higher than the foreign quotations, while the quotations for the city of Boston are higher in each year than the average for the cities in the United States included in the returns for blacksmiths and blacksmiths' helpers; and the same statement applies to cabinet makers, machinists, plumbers, and teamsters, except for the year 1880, in which the Boston figures drop below the average for the cities of the United States. On the other hand, the wages for Boston, while higher than the foreign quotations, are lower than the average for the cities in the United States in each of the years for boiler makers and compositors, and in each of the years except 1898 for carpenters. The Boston wage quotation is higher than the average for the cities in the United States, as well as higher than the foreign quotations, for bricklayers, iron moulders, and stonecutters in 1870; hod carriers in 1870, 1880, and 1893; iron moulders' helpers in 1870, 1880, 1890, 1893, and 1898; machinists' helpers in 1880, 1890, 1895, 1896, 1897, and 1898; painters (house) in 1870, 1897, and 1898; and pattern makers (iron works) in 1870, 1880, 1890, 1893, and 1895. Conversely, the Boston wage is lower than the average for the cities in the United States, although higher than the foreign quotations, for bricklayers, iron moulders, and stonecutters in 1880, 1890, 1893, 1895, 1896, 1897, and 1898; hod carriers in 1890, 1895, 1896, 1897, and 1898; iron moulders' helpers in 1895, 1896, and 1897; machinists' helpers in 1870 and 1893; painters (house) in 1880, 1890, 1893, 1895, and 1896; and pattern makers (iron works) in 1896, 1897, and 1898. In the following occupations the wage quotations for 1898 are lower than those for 1870 in Boston: Blacksmiths, iron moulders, iron moulders' helpers, pattern makers (iron works), and stonecutters. In every case, however, the average wage for the cities in the United States is higher in 1898 than in 1870, except for iron moulders, in which the averages for 1898 and 1870 are identical.

The wages for blacksmiths in Boston show a progressive decline from 1870 to 1895, and from 1895 to 1898 remain at substantially the same level. The average for the cities of the United States, however, shows a gain from 1870 to 1890, but afterwards a decline to 1898, closing, however, fractionally higher than in 1870.

The wages for blacksmiths' helpers in Boston show a progressive gain from 1870 to 1895, and from 1895 to 1898 very little variation

appears, the quotations for 1897 and 1898 being identical. The average for the cities in the United States in this employment shows a gain from 1870 to 1893, a slight decline in 1895 as compared with 1893, followed by a gain, and closing in 1898 at substantially the same point as in 1880, although higher than in 1870.

For boiler makers, the Boston quotations show a gain from 1870 to 1890, a decline in 1893 as compared with 1890, the loss being partly recovered in 1895, accompanied by a slight loss in 1896, and a recovery in 1897 to the level of 1895, and a still further gain in 1898, in which year we find the highest quotation shown in the comparison, except for the single year 1890. The average for the cities in the United States shows a gain from 1870 to 1890, followed by a decline in 1893 and 1895, partially recovered in 1896, but lost, however, in 1897, and more than regained in 1898.

For boiler makers' helpers, the Boston wages show an increase between 1870 and 1890, a decline in 1893 as compared with 1890, followed by subsequent fractional gains, the quotation for 1898 being higher than any other except for the year 1890. The average for the cities in the United States shows a gain from 1870 to 1890, followed by a decline in 1893, a further decline in 1895, which is offset, however, by a gain in 1896. The wage for 1897 is slightly higher than that shown for 1896, while the quotation for 1898 is identical with that shown in 1896 and 1893; and although higher than in 1870, is lower than the figures for 1880 and 1890.

For bricklayers, the Boston wages show a decline in 1880 as compared with 1870, followed by a marked advance in 1890, a still further advance in 1893. In 1895 the wages dropped to the level of 1870, and still lower in 1896, followed by a considerable advance in 1897, part of the gain being lost in 1898. The average for the cities in the United States shows a gain from 1870 to 1890, followed by a decline in each year up to 1898, which year, however, shows a higher quotation than 1870.

For cabinet makers, the wages for Boston show a gain in each year as compared with 1870, except for 1880. The average for the cities in the United States shows a gain from 1870 to 1890, followed by declines in 1893 and 1895, a partial recovery in 1896, and a subsequent drop in 1897 and 1898.

For carpenters, the Boston quotations show a gain from 1870 to 1890, the figures for 1890 and 1893 being identical. They afterwards exhibit a decline in 1895 and 1896, and a marked advance in 1897 and 1898. The average for the cities in the United States shows an increase from 1870 to 1893, a decline in 1895 and 1896 as compared with 1893, a gain in 1897, and a subsequent loss, which carries the average in 1898 down to the level of 1896.

The Boston quotations for compositors show a gain from 1870 to 1893, a drop in 1895 as compared with 1893, the loss being partially

recovered in 1896 and 1897, followed by a slight decline in 1898. The average for the cities in the United States shows a gain from 1870 to 1890, a slight loss in 1893, followed by an increase in 1895 and 1896, a subsequent decline in 1897, partly recovered in 1898, in which year the quotation is practically the same as in 1895.

For hod carriers, the Boston wages show a gain from 1870 to 1893, a drop in 1895 as compared with 1893, and a further loss in 1896, recovered, however, in 1897, and followed by a drop in 1898, carrying the average below that given for any year subsequent to 1880. The average for the cities in the United States shows a gain from 1870 to 1890, followed by a slight loss in 1893, a still further loss in 1895 and 1896, partly recovered in 1897, and lost again in 1898.

For iron moulders, the Boston quotations exhibit a decline in every year as compared with 1870, although the wage for 1898 is higher than for any year subsequent to 1870. The average for the cities in the United States shows a loss in 1880 as compared with 1870, more than offset by a gain in 1890. Since 1890 the tendency has been downward, carrying the wage in 1898 to the same point as in 1870.

For iron moulders' helpers, the Boston quotations show a gain from 1870 to 1893, followed by subsequent losses as compared with 1870. The average for the cities in the United States shows a gain in each year as compared with 1870, the quotations for 1895, 1896, 1897, and 1898, however, being lower than for 1880, 1890, and 1893, although higher than for 1870.

For machinists, the Boston wages are lower in 1880 than in 1870, higher in 1890 than in either of the preceding years, still higher in 1893, followed by a decline in 1895, carrying the average to the level of 1890, a still lower point being reached in 1896, offset by a gain in 1897, followed by a drop in 1898 to the level of 1890 and 1895. The average for the cities in the United States shows a gain from 1870 to 1890, followed by a decline in 1893 and a still further decline in 1895, partly offset by an increase in 1896 and 1897. In 1898 a slight drop appears, the wage in that year, however, being higher than in 1895 and 1896, although lower than the quotations for the years prior to 1895, excepting 1870.

For machinists' helpers, in Boston the wages show an increase from 1870 to 1890, a decline in 1893, followed by an increase in 1895, another decline in 1896, and increases in 1897 and 1898. The average for the cities in the United States follows substantially the same course, except that the gain in 1895 is not shown.

The quotations for painters (house) in Boston show a drop from 1870 to 1880, followed by a gain in 1890 and 1893, and a further advance in 1895, partly lost by a drop in 1896, and more than offset by gains in 1897 and 1898. The average for the cities in the United States shows a gain from 1870 to 1893, followed by declines to 1898, the loss being nearly made up by a gain in that year.

The Boston quotations for pattern makers (iron works) show a sharp decline in 1880 as compared with 1870, a partial recovery in 1890, the average being carried to a still higher point in 1893, followed by declines to 1897, and a partial recovery in 1898. The average for the cities in the United States shows gains from 1870 to 1893, a decline appearing in the following years as compared with 1893.

For plumbers, the Boston quotations show a loss from 1870 to 1880, a marked increase in 1890 and 1893, a slight drop in 1895 as compared with 1893, followed by gains in 1896 and 1897, partly offset by a drop in 1898. The average for the cities in the United States shows a gain from 1870 to 1893, since which time very slight differences appear, although the quotations for 1897 and 1898 are slightly lower than those for 1895 and 1896.

For stonecutters, in Boston the quotations exhibit a decline from 1870 to 1880, followed by a gain in 1890, a drop in 1893, a still further loss in 1895, followed by increases in 1896, 1897, and 1898. The average for the cities in the United States shows a drop from 1870 to 1880, a gain in 1890 and 1893, and losses in 1895, 1896, 1897, and 1898.

For teamsters, the Boston wages show a gain from 1870 to 1890, a slight decline in 1893 and 1895, partly recovered in 1896, followed by a still greater loss in 1897, more than offset, however, by a gain in 1898. The average for the cities in the United States shows a gain from 1870 to 1890, substantially similar quotations in 1893 and 1895, followed by a slight decline in 1896 and 1897, the wage for 1898 being slightly below that for 1896.

AMERICAN GOODS IN FOREIGN MARKETS.

Massachusetts manufacturers are at the present time taking particular interest in foreign trade, and there is no doubt that the products of this State, under proper conditions, would find a ready market abroad. The United States Government has, in its consular reports, recently published letters from its agents containing seasonable advice concerning the proper methods to be adopted for the introduction of American goods into foreign markets. Some of the leading nations of Europe have organized special expert commissioners to gather technical information for the education of their manufacturers in certain lines of production. The commission sent out by Germany, under governmental authority, to study the markets of Japan, China, and Korea, remained abroad for a year of thorough study and work. Its result was a large collection of textile fabrics and other goods which were manufactured in

Japan and China for home consumption and for export trade to neighboring countries. These samples were not publicly exhibited, but admission was granted by card to discreet persons. Subsequently the collection was broken up and distributed to the different manufacturing localities of Germany, the textile fabrics being sent to the Chamber of Commerce at Crefeld for the inspection of manufacturers of such goods, who, after a careful analysis of the materials, proceeded to manufacture the same quality for the foreign market.

The fault, as expressed abroad, of the American manufacturer, is that he thinks he knows better the wants of the Japanese, the Chinese, etc., than the natives of Japan and China do themselves; that he tries to supply what the seller wants to sell, not what the buyer wants to buy. Relative to the work of these commissions and the attitude of the American manufacturer, Mr. Frank H. Mason, Consul-General at Frankfort, Germany, says:

There is in all the specialized work of these commissions a broad recognition of the fact that in foreign trade it is the buyer, not the seller, who determines the kind of article he wants and the form in which he wants it turned out, labeled, and packed for shipment to him. It is the business of the seller not to force upon the consumer something that he never heard of and does not want, but to ascertain exactly what he has used and sold hitherto and then furnish him with something of the same general kind — but better for his money — that he has had before. The exporter who succeeds best is, other things being equal, he who learns most accurately the wants of his customers and supplies them most nearly in the currency and on the terms and conditions to which the buyer is accustomed. At present the Germans are perhaps the ablest masters of this theory of export trade; the English are thought to have lost much for want of it, and Americans will undoubtedly excel in it when once they realize its importance.

Secondly, the goods must, as a principle, be sold not at home, but abroad. The seller must go to the buyer with samples, prices, and conditions which the latter can see and readily understand. No museums or other collections of sampled merchandise, however useful in some respects, can attract more than a very limited number of buyers to the United States, from remote countries in which competing nations are already offering their goods, imported there at the expense of the wholesale merchant or the manufacturing exporter. Circulars and catalogues, however skilfully prepared, which only inform the foreigner what he can buy in the United States in dollars, will not compete effectively with the German, French, or English merchant who is there on the spot with his goods, duty paid, and fluent salesmen to show and explain them.

The need of the period in our country is a class of competent, well-trained young men, with good manners, a practical command of French, German, and Spanish — one or all — combined with intimate practical knowledge of a certain class of manufactured goods and the commercial methods, currencies, weights, measures, and customs of foreign countries. The education of such men requires certain specialized courses of study which the commercial schools of Germany, and, to some extent, of Belgium and England, furnish, but which those of the United States, with perhaps some exceptions, do not. The all-round education provided by American colleges and high schools turns out young men more or less fairly equipped for successful careers at home; but the competition for export trade has now become so sharp as to require the work of experts, which only specialized education, supplemented by practical experience, can provide. It will henceforth be necessary that a largely increased class of young men shall prepare themselves for, and accept definitely, as so many thousands do in Great Britain and Germany, the career of mercantile employees in foreign lands, in which

social sacrifices and the discomforts and even dangers of alien climates are balanced by the material advantages which such a career offers to energy, perseverance, and trained capacity.

In this connection, we quote also from a report made by a commercial traveler of over 14 years' experience in eastern countries, to Consul-General Stowe of Cape Town, South Africa :

There is hardly an article manufactured in the United States for which a good demand does not exist in foreign countries, due either to the excellence of the goods or the reasonable cost. Many articles of higher price than those offered by other countries will sell, simply because they come from the United States, on account of the reputation that American exports have won. If the sale of manufactured articles abroad has been small compared with the demand, the fault lies with the manufacturers themselves. For each manufacturer a market and demand must be created. He should bring his own goods direct to the market, and, once introduced, the commission house will gladly do the further work of filling orders or taking new ones, because the goods will be wanted by the customers. The exporter says with reason that he cannot pay his men and have them spend time in introducing the line of each manufacturer who desires it ; the manufacturer himself must take the first step, and create the demand. The objection of expense can be met by a method which has been adopted with success by Germany, Austria, France, Italy, etc. From ten to twenty manufacturers of different lines combine in sending out a man who understands the business of traveling and selling goods. This man works solely in the interest of the manufacturers, introduces their goods, and takes orders. The orders may be filled by the manufacturers direct, or may be turned over to some of the different export commission houses in America. These arrangements should be made before starting out, in order that the buyers can be informed at once when and how goods will be shipped. If twenty of our manufacturers combine thus for, say, one year, the expense to each would be about \$300 to \$400. This amount should cover traveling expenses, the opening of sample rooms in different places in order to display the goods and take orders, the cost of licenses, etc. Our manufacturers should not let foreigners win markets which United States goods would control, if they were only obtainable.

Twenty years ago, American shoes were unknown in Germany. In 1880, the value of shoes imported into Germany from the United States amounted to \$1,666 ; in 1896 it was \$39,508 ; and for the first five months of 1898 it was \$59,500. The demand for American shoes has not been brought about by American manufacturers, but by travelers from the United States, some of the consular officers, and resident Americans. Hon. Brainard H. Warner, Jr., consul at Leipsic, says :

About six months ago, I took occasion to write to a gentleman in New York who is interested in the export trade and whose intention it was to make a business trip to Germany, and asked him to open correspondence with several of the largest shoe manufacturers and ascertain if it would be possible for him to secure the European agencies for their shoes. In every instance, this gentleman received the reply that the different firms had really more orders than they could even think of filling, and were in no position to consider foreign connections. There may be some of the smaller firms who could dispose of more shoes, and I would most earnestly recommend them to exert themselves to secure a market for their products in this country.

In this connection, Consul Nusbaum writes from Munich, under date of July 2 :

Several of the principal shoe dealers in Munich sell American-made shoes, but only on a small scale. There are from 1,000 to 1,500 English-speaking residents in the city, two-thirds of whom, I am confident, would buy American shoes if their tastes could be suited. Our large shoe manufacturers at home can build up a lucrative trade in this country if they will open stores in the principal places, with a stock complete enough to meet the requirements of German buyers. Several young men of my acquaintance go to the expense of importing shoes from the United States for their own personal use. As a rule, Bavarians have their shoes made to order, and sizes run somewhat shorter than in American makes. A representative of a number of Boston shoe manufacturers was very successful in Hamburg, Berlin, and Dresden. He visited Munich a few days ago, and had little trouble in securing orders. Sending English circulars and catalogues is no way to induce Germans to buy American-made articles. People here want to be talked to. They like to see the real manufactured article. Engravings and catalogues do not impress them. The German duty on shoes is \$11.90 to \$16.65 per 220 pounds.

There is a movement on foot to incorporate a company under the laws of Germany, which will erect a warehouse for the display and sale of American products, provided manufacturers and dealers in America evince a disposition to aid and encourage the enterprise. It is proposed to handle and sell goods on commission, and guarantee the payment of all bills of goods sold by them or their agents.

The German press has alluded to the growing American competition in their markets, and has criticised the American products, conveying the impression that "the United States is unloading cheap goods on the German market." Upon this point and upon the general outlook for American shoes in Germany, Mr. Monaghan, our consul at Chemnitz writes, under date of September 24, 1898 :

A large market, not only in this Empire, but all over Europe awaits intelligent and energetic measures to introduce American shoes. Our \$2.50, \$3, \$4, and \$5 shoes are better by far than anything made here at the same price. The only country in which competition will be hard is Austria. There, especially in Vienna, good shoes are made at prices similar to those in the United States. A combination of manufacturers with a central receiving and delivery office in Hamburg, could easily cover the German and Austrian end of the continent; another in Antwerp could cover Belgium and Holland. Germany sees American shoes gaining against every effort to keep them out. While I do not believe a bad pair of shoes was ever sent over, I think it wise to urge our manufacturers to send only the very best goods they can give for the money. Every inch won here will be worth miles in other countries. If our agents in South America can say, "We sell to Germany, to England, to every country in Europe," it will be a "card" such as no advertising in journal or circular could ever equal.

Mr. Monaghan is strongly of the opinion that excellent opportunities are at this moment offered in the German market for the sale of American tools, electric appliances, and articles used in the construction and equipment of railroads. There, as here, electric traction is being widely developed. He says the superiority of American machines and tools is acknowledged, as shown by more or less successful imitations of them by machine builders in Mannheim, Magdeburg, Leipzig, Chemnitz, and Berlin. Owing to the disposition to imitate American construc-

tion, he counsels protection through German patents. He believes that, if properly cultivated, a market exists in Germany for silverware, light articles of general hardware, and furniture, as well as shoes. All these things are extensively represented in the industries of Massachusetts. He points out, however, that consuls cannot constitute themselves active agents of American manufacturers. They can only watch markets and point out possibilities.

With respect to American shoes in Gaudeloupe Consul Aymé, under date of September 17, 1898, says :

A merchant here has received from the United States a large sample case of boots and shoes (men's, women's, and children's), and is doing remarkably well with them. His orders are a great surprise to him. The samples are of excellent material and workmanship, light, and stylish in appearance. It is to be hoped that the orders will be filled with shoes of the same grade as the samples, as that will insure a steady trade for the future. These goods can be sold by the importer at an average price of \$1.81 a pair. The duties average 30 cents a pair and freight 3 cents. The importer's profit must also be calculated. The average retail price will be about \$2.50.

As all boots and shoes have heretofore come from France, I am glad to chronicle this seemingly promising competition of American goods.

Consular reports just made from each of the localities alluded to are authority for the following statements, mainly in the words of the consuls themselves, relating to articles produced in Massachusetts :

Harness. — The factories of Scotland are small concerns, and the output of each is only a handful in comparison with the product of one of the large factories of the United States. If labor is cheaper there (Scotland), the American harness manufacturers have the advantage of better machinery and an enormous home market, which warrants production on a great scale, and which should enable them to dispose of the surplus abroad at prices lower than the factories of Scotland can afford to charge for goods at home.

Textiles. — Brazilian dealers prefer the textiles of the United States, even on 30 days' credit, as against four months' from Europe.

Food Products. — American bacon is sold in Bohemia for 13 cents a pound; Austrian bacon, from 15 to 20 cents. American bacon is the better. If American butter can be kept during the time necessary to ship it here, all other circumstances seem to favor its successful introduction into this part of Europe.

In Cape Town the demand for American butter is from July to October, when the Australian and Denmark butters are not on the market.

There is an opening in Portuguese East Africa for first-class American butter, packed in one and two pound tins that can be opened by a key attached to each tin. Can openers are objectionable.

An excellent market can be created in Para for high class confectionery. There is not an establishment dealing in such goods in the place.

Canned goods of all kinds from the United States appear to be in fair demand in Munich.

A purely American store, if established in Jerusalem, would soon create a considerable demand for American goods. Such canned goods as corned beef, ham, tongue, salmon, lobsters, oysters, milk, sweet corn, lard, berries, and such fruits as do not grow in Palestine, ought to be sent here from the United States.

Boots and Shoes. — Boots and shoes for women and children are in great demand in Brazil.

There is a good market in southern Germany for boots and shoes.

One merchant at Jerusalem ventured to import a small invoice of American made ladies' shoes; they were taken at once, and there is a call for more. English ladies who tried them were highly pleased with them.

American boots and especially shoes are securing quite a foothold in Para. One agent states to our consular representative that the attractive finish and superior workmanship enabled him to dispose of his entire consignment, which had been specially made by a Massachusetts house. This same merchant "has gone to Boston to lay in a much larger line of shoes. He intends to open an American shoe house, confining himself entirely to these goods."

Machinery. — American made agricultural machinery is widely used on the farms of Scotland.

The imports into Germany of English machinery for the eight months ending August, 1898, show a falling off. This is due to Germany's increased capacity to supply her own needs, and to the rapidly gaining American competition. In the eight months ending August, 1898, England sent 28,287 tons, against 29,719 in the year 1897, while the United States sent 16,190 tons, against 9,240 tons in 1897. England is finding out that Germany's success is due in a very large degree to her superior technical training, and that of the United States to our native skill in mechanics. Once we add this Empire's system of schools to Nature's endowments, no nation will be able to surpass and few able to equal us.

At Cape Town, with no timber and no iron, and thus far no coal suitable for manufacturing purposes, manufactured articles must be imported.

The United States does not materially help to supply the vast quantity of spinning machinery required in Japan. This should be looked into carefully by American manufacturers of machinery, as cotton spinning is rapidly on the increase. Agencies for the purchase of spinning machinery are established in New York. The United States leads in the exportation of paper making machinery. Large paper mills are established in this consular district. The United States is well ahead in the exportation of dynamo electric machinery and should maintain its lead.

There is a broad field for expansion in machinery in Para. Its use

has largely increased during the past six months, and would increase more if our manufacturers would take advantage of this opening. An energetic man should be sent; correspondence eschewed. Everyone who has handled American machinery praises it in high and unmistakable terms.

Clocks, Watches, and Jewelry.—In Japan the American watch is considered a superior article; but what is required for the Japanese market is a watch low in price and attractive in appearance. Such a watch placed on the market there would displace the Swiss article.

This rich field (Para) should not be surrendered to the Germans. There would be no difficulty in disposing of a large quantity of rolled-gold or cheap plated jewelry. A steamship load of watches, selling from \$4.50 to \$7, or as high as \$9, can be disposed of here and up the Amazon river. A market could be created also for a cheap line of clocks. For spectacles or eyeglasses, a metal known as “alloy” is rapidly gaining favor; in fact, it would be difficult to market any other kind.

Beer.—There is a very good market for beer of all kinds in Portuguese East Africa. The brands of American beer that have been sold here are generally liked. Some American brewers are too conservative in their business methods for this country. They want remittances to cover all orders, and are not inclined to send sample lots. A little more liberality would result in increased sales. It is safe to sell and draw upon bills of lading when a letter of recommendation from a local banker is attached to orders. The packing and prices of American beer are entirely satisfactory.

GERMAN AND FRENCH PROGRESS IN WEAVING.

Technical and industrial education in Germany receives continually increased attention. In its progress and development, the Government, the mercantile corporations, and the municipalities aid it in every possible way. Schools are to be found in nearly every large trade centre, where details of manufacture are taught and the latest discoveries of science and practical experience are employed. Concerning the school for weaving in Gera, Consular Agent Neuer reports:

Wealthy manufacturers take a deep interest in the institute and have aided it from time to time by donations and bequests. Moreover, the institute is supported by subscriptions, the fees of the students, and an annuity of \$476 granted by the Government. It has a principal and seven assistant teachers, who possess special qualifications and are skilful weavers themselves. The board of administration consists of five expert merchants, who watch over the school's progress, examine its work, and report to the city's association of manufacturers.

The course of study lasts four years, and instruction in the single classes comprises the following subjects :

Class 1. — Calculation and pattern designing; origin and development of weaving; mode of sorting and classifying the raw material; method of rating goods by ascertaining the quantity and price of material used, and also cost of labor required in the production of a given length and width of goods, or from given data of values of material and labor.

Class 2. — Weaving in its present state of perfection; weaving and designing of jacquards; nature and properties of the various kinds of wool.

Class 3. — Machine construction, with special regard to the power loom; comparative merits of power looms; consideration of the principal parts which are common to all power looms.

Class 4. — Construction of the various kinds of hand looms; weaving by hand looms; technical designing; weaving of fancy articles, etc.

Theoretical instruction is given from various works on weaving, and from a large collection of designs and models. For practical instruction, there are in use 13 power and 17 hand looms, adapted to the weaving of various standard fabrics, besides other appliances for demonstrating the processes of preparation and of plain and fancy weaving.

The fee to be paid monthly by each pupil amounts to only 12½ cents, hence enabling the working classes to share the benefits of the training.

This attention to industrial education is having its effect in promoting the industrial progress of the country. German competition in woven goods is seriously felt in France. The manufacturers at Roubaix, especially, are endeavoring to recover the patronage which has been gradually slipping from them on this account, and the director of the Technical Institute there has just made a report on a new rapid-weaving machine in operation at Verviers. The substance of this report, which should be of interest to all engaged in the weaving industry, is thus given by W. P. Atwell, U. S. Commercial Agent at Roubaix :

One of the most important of early inventions was the appliance which stopped the machine automatically, upon the breaking of the woof thread or when the shuttle was exhausted. Then came the American Northrop machine, which, instead of stopping the machine, insures a continual running by the mechanical substitution of full shuttles in the place of empty ones. The principal object of the Northrop machine is to increase the production of plain stuffs, principally cotton, and this result is obtained by rapid working, 190 to 195 strokes to the minute, and the suppression of stoppages, caused by the breaking of the weft, the replacing of shuttles, and threading the machine.

Although this result has been most satisfactory, the new Millar machine surpasses this and permits the use of ordinary material. The working rapidity is the only point that the two machines have in common; the principle of weaving is absolutely different. In the first place, the threads of the goods produced by this machine do not cross one another at right angles; there is also a sort of knitting stitch. In this mode of weaving, which may be called mixed or a cross between rectangular and chain weaving, there are no blades, or weights, or even the shuttles and lathes of ordinary machines.

On one side of the working machinery, the warp thread is disposed on its frame, and beneath this machinery is the tissue, which rolls itself up. There are also two arrangements of bobbins, one above the other, each carrying from 100 grams to 1 kilogram or more of woof yarn. One series of these bobbins supplies the straight thread and the other the chain stitch. They are both propelled by a similar movement by means of an

endless chain, which moves along two parallel straight parts united at their ends by two round pieces. The two straight parts vary in length according to the width of the goods. When the bobbins, drawn by the endless chain, pass into the round pieces they cease to work; but when they are brought back to the straight parts, they pass before a plate which sets them in motion—one series supplying the straight threads and the other the chain stitch. Nothing could be more simple than the Millar machine, which substitutes the knitting motion for the ordinary shuttle.

The texture shows the woven effect on one side and the knitted on the other; but the woven effect can be produced on both sides, and the chain stitch can be made less prominent in wool or cotton goods by using four threads on the bobbin that feeds this stitch, and by falling in drapery goods.

The machine lends itself readily to weaving yarns of different color and quality, as the various bobbins can be supplied according to taste. Raw material of inferior quality can also be used, as there is little strain on the thread in this mode of weaving, the weft thread floating like that of a knitter. The production is astonishingly rapid; 120 to 200 meters can be woven in a day of ten hours. There is also great economy of hand work, one workman being able to oversee six machines. The motive force is perhaps one-half that demanded by the ordinary machine, the Millar having the motion of a sewing machine or of knitting needles.

It is difficult to predict the future of this new machine. It is a step in advance, without doubt; but it can not take the place of the Jacquard. It will be advantageously used in the manufacture of plain stuffs, drapery, and velvet. It is not very well suited to novelties. Without revolutionizing the weaving process, it realizes an ingenious idea in the line of simple mechanism. This machine will, perhaps, be a powerful factor in competing for the plain-goods market, but the field will doubtless be left clear to the Roubaix manufacture, in the line of Jacquards and high novelties.

Commercial Agent Atwell writes from Roubaix, under date of October 17, 1898, that the local chamber of commerce has addressed a plea to the French Minister of Commerce in behalf of favoring the textile products of this region in a reciprocity treaty with the United States.

THE AIMS OF TRADES UNIONS IN ENGLAND.

The Annual Congresses of the English Trades Unions give a clear view from year to year of the trend of the labor movement, and enable us to see what reforms organized labor in England is aiming to secure.

The 31st Congress was held at Bristol, England, Aug. 29–Sept. 3, 1898, at which 406 delegates were present, representing 188 trades unions, with a membership of 1,184,241. Mr. James O'Grady, of Bristol, was elected president, and in his opening address he called attention to the national character of the work of the Congress from a political and parliamentary point of view. He also called attention to the fact that something tangible should be done to free English industrial conditions from the shame and disgrace that were attached to it in the "half-time system" and the continuation of the employment of children. He stated

that, "At the International Congress, held in Berlin in 1890, Sir John Gorst, speaking as the representative of Great Britain, with the telegraphed sanction of Lord Salisbury, pledged us to the twelve-year old limit for work above ground, and to the fourteen-year old limit for work under ground. That pledge is still waiting redemption." The "Workmen's Compensation Act," which went into operation July 1, 1898, was described as containing the germ for a more complete measure for the benefit of the workingman in the future. The employers disliked it and many of the working class disapproved of it, but, it being a step in the right direction, the better plan, he thought, would be to accept it for what it was worth and endeavor to have it amended and strengthened. Many other suggestions and opinions were given, which resulted during the session in the passage of a number of resolutions, among which were the following:

Favoring international disarmament: "militarism being the great foe of liberty, and a crushing burden upon the toiling millions."

Amendment of the poor laws so as to remove the civil disabilities at present attending the receipt of temporary relief.

Denouncing the Truck Act of 1896 as a failure, "being vague, and so worded that it confuses manufacturers, workers, and lawyers, and because it permits the signing of a contract which is frequently made the condition of employment, and also because it legalizes truck in some of its most objectionable forms."

Demanding the separate valuation of land and improvements and the assessment of taxation and rates upon the full value of the land, whether used or not.

Amendment of the Factory Act so "(1) that the certifying surgeon's fees should be abolished, and paid by the Treasury as in the case of the factory inspectors; (2) the inclusion of more trades under the head of 'dangerous and unhealthy trades'; (3) the extension of section 40 (the giving of particulars of work) to all trades and occupations paid by piece; (4) the extension of its scope so as to make it include all vessels and craft in port, river, dock, or canal; and (5) the appointment of men as inspectors who have a practical knowledge of the work to be inspected."

Demanding the privilege of depositing trades unions' funds in the Postal Savings Banks without limit; a privilege held by all registered industrial and provident or friendly societies.

Extending the working of the recent bill for compensation for accidents to workmen to include all workers, both on land and sea.

Declaring that "the time has arrived when the hours of labor should be limited to eight per day in all trades and occupations in the United Kingdom." In this connection resolutions were adopted favoring a bill introduced by Sir Charles Dilke, in the House of Commons, which proposes a uniform hour for closing all shops (with certain exceptions) at seven o'clock on three days of the week, one o'clock on one day, nine

and ten o'clock respectively, on two other days, and all day on Sunday; also approving the miners' eight hours' bill and bills providing for 48 hours during a week for bakers; reduction of hours for barmaids and waitresses from 74 to 60 hours per week; and demanding the abolition of child labor under the age of 14, and of all night labor on the part of all persons under the age of 18.

Favoring International Congresses of cognate trades, and movements to assist the international consolidation of labor. Upon the question of the general federation of the trades affiliated with the Congress, a special Congress is to be held in Manchester, England, during January, 1899, to consider the question, upon which opinion seems to be divided.

Opposing the renewal of all amusement and refreshment licenses unless the holders and applicants agree to sign the "Fair Wage and Hours of Labor" clause, and grant their employes a six-day working week.

Removing the disability under which British workmen suffer of being unable to recover compensation from foreign shipowners for personal injuries received through negligence of said shipowners or their agents, and giving the right to recover damages in the port in which the injuries were received.

Favoring compensation for dependent relatives of deceased Civil Service Servants who may die in the service of the Crown, and who have had deducted from their pay certain sums toward pensions; protesting against the refusal to allow postal employes to combine for mutual protection; and protesting against the unsanitary condition of post-office buildings.

Asking that Parliament devote 30 days in every session for legislation for the working classes, and protesting against the introduction by the Government of a system of forced labor among the native races under British control.

Condemning the present system of foreign export bounties as "being detrimental to the best interests of international trade and labor."

Expressing the opinion that practical coachmakers should be appointed inspectors of hackney and public carriages.

Protesting against the power "which an employer now possesses of being able to retain a workman's wages on the ground of any breach of contract of service by the workman."

Declaring that the time "has now arrived when the railways of the country should be taken over by the Government."

Demanding the abolition of steam in weaving sheds.

Condemning the educational policy of the present Government and declaring that the workers should not be satisfied until the highest educational advantages were within the reach of all; that school boards should provide food for the "starving and under-fed children in the people's schools;" and that the cost of educating children should be

defrayed out of the National Exchequer, which charge should be met by the administration of educational grants and endowments, and a graduated income tax on all incomes over \$1,500, and by graduated death duties.

The Congress supported a resolution urging upon Parliament the necessity of some measure dealing with the nationalization of the mineral royalties of the country, and in connection with this subject adopted the following statement: "That this Congress, believing that the labor problem will be solved only when the land and the means of production, distribution, and exchange are held as common property, and that political action is the best method to reach this end, recommends trade-unionists to give their support, moral and financial, to the working-class Socialist parties." On a division the votes, by cards, were for the amendment 708,000, against the amendment 410,000.

With respect to the subject of arbitration of trade disputes, a resolution was introduced in favor of compulsory arbitration and instructing the Parliamentary Committee to prepare a bill dealing with the subject for introduction to Parliament, and requesting the labor members to support the measure. To this an amendment was offered from the Navvies' Union, stating that "while favorably disposed towards the principle of arbitration in labor disputes, this Congress is not in favor of the forcible dragooning of either party, but would urge upon the Parliamentary Committee the necessity of moving a resolution in the British House of Commons that all contractors be permanently debarred from tendering for any Government work who, in either their public or private capacity as employers, refuse to submit a labor dispute to arbitration when requested by the Board of Trade." As this amendment appeared to conflict with the resolution, the Chairman of the Congress ruled that the original resolution and the amendment be referred to the Parliamentary Committee.

The Congress declined to adopt a resolution favoring the establishment of a common measure of value between gold-using and silver-using countries by agreement among the leading nations, and advocating the initiative of Great Britain in promoting such an agreement.

It adopted a resolution that children from 11 to 13 years of age should not be allowed to work more than four hours per day in any industrial occupation, and that such working time should not commence before 8.30 A.M. nor continue later than 6 o'clock P.M.; also resolved that the Parliamentary Committee should take steps towards securing an amendment of the Factory and Workshops Act prohibiting work in paper mills or textile mills from Saturday noon to 6 A.M., Monday morning, except upon repairs.

Organized labor in America, as usual in recent years, was represented by delegates, Messrs. Duncan and Lloyd, who addressed the Congress in behalf of a closer union between trades unions in Great Britain and the United States.

THE MAINTENANCE OF THE STANDARD OF LIVING.

It is exceedingly difficult to generalize with regard to the complex elements that enter into the labor question, or to put in a single concise and inclusive statement the kernel of the labor problem. It has many sides and various aspects. But so far as any one phrase can represent its breadth and fulness, it may be summed up as the effort on the part of the wage worker to maintain and elevate his standard of living. And the more this matter of the standard of living is examined, the clearer it is seen that it touches the prosperity and welfare, not merely of the worker, but of society itself. The moral evils that flow from a low standard of living are obvious. It is not quite so obvious, but equally true, that it fosters economic evils as well. Permit the standard of living to fall, and the result is immediately reflected in lessened demand for the products of industry, undermining not only wages but profits.

It is broadly true that the standard of living of the wage worker is measured by his earnings, rising or falling with an increase or decrease in his wages. The general wage standard in the community thus becomes a matter of public concern. There is a marked difference between commodities and labor. It is for the general advantage that commodities shall be produced at low cost, and shall be cheap and plenty. It is for nobody's advantage that earnings shall be low. A low wage level does not mean low cost of production. The two things should be sharply discriminated.

In order that commodities in general may be produced at low cost and sold at a low price, without diminishing profits, they must be thus produced and sold in large quantities. This requires two things; improved processes and a wide market. The first involves the use of machinery and invention; the second implies enlarged purchasing power on the part of the people, due to high wages and an elevated standard of living.

These considerations underlie the trade union movement in behalf of a minimum wage, fixed at a point above the poverty line, and are especially influential in the movement gaining ground constantly, towards recognizing, in public work performed under contract, what is known as a "fair wage." Both these movements therefore, although advocated in behalf of a class, really rest upon grounds of public policy. This policy may be said to be established in England, and seems likely to make its way here. It is not our present purpose to consider it theoretically, but to review briefly some of the ways in which it has been practically applied.

The London School Board is said to have been the first public body to accept the principle, by providing in 1889 that in work executed under

its control, not less than the recognized standard rates of wages should be paid. During the last nine years the London County Council has maintained the same course. With respect to the organized trades, it adopts in its direct employment, and also requires its contractors to observe, the standard list of wages recognized and adopted by the leading employers in the particular trade within the London District: and with regard to the unorganized trades or unskilled labor generally, it has established a minimum rate, sufficient to maintain the employes efficiently and decently.

This, it is true, is not buying labor in the cheapest market, and the policy of the Council has from the standpoint of a certain school of economists, been criticised for that reason. On the other hand, the position of the Council, especially with regard to the lower grades of labor, has been thus stated:

“When a Board of Poor Law Guardians finds itself rescuing from starvation, out of the poor rate, women actually employed by one of its own contractors to make up workhouse clothing, at wages insufficient to keep body and soul together, even the most rigorous economist would admit that something was wrong. The London County Council, responsible as it is for the health of the people of London, declines to use its position as an employer deliberately to degrade that health by paying wages obviously and flagrantly insufficient for maintenance, even if competition drives wages down to that pitch. The economic heretics, in fact, are not the Council, but those who, in flat defiance of Adam Smith, McCulloch, Mill, and Marshall alike, persist in assuming that there is some obligatory ‘law’ that the pressure of competition ought, without interference from man, to be allowed so to act as to degrade the whole standard of life of the whole community.”*

So far as the contractors are concerned who tender proposals for public work, competition is not eliminated; but one of the conditions under which the competition proceeds is fixed. The level upon which the competition is conducted has been raised. It now becomes competition upon a plane whereon standard wages are maintained. We have elsewhere alluded to the “Fair Wages Resolution” of the House of Commons, and have outlined the experience under it.† Many of the urban districts of England now insert, as a customary provision, in all contracts for public works, conditions relative to the rate of wages or other conditions protecting the standard of living, such as limiting hours of labor, etc. These districts include 48 so-called county boroughs, 54 non-county boroughs, and 115 other urban districts. In a few of the small districts the conditions merely relate to the character and efficiency of the men to be employed, while in many others the application is to rates of wages only. Of the last the following clause inserted in public contracts in the borough of Birmingham, is typical:

* Fabian Tract No. 84. London, 1898.

† Bulletin No. 4, October, 1897.

The contractor shall, during the continuance of this contract, pay, or cause to be paid, to all workmen engaged upon the works the subject of this contract, not less than the recognized minimum standard rate of wages current in the district or districts where such work shall be carried out, and if it shall be proved to the satisfaction of the corporation that the contractor or sub-contractor or sub-contractors have paid less than the minimum standard rate of wages as aforesaid, the contractor shall pay to the corporation as and for liquidated damages a sum of 20 shillings for each and every case in which such underpayment shall be proved, and it shall be lawful for the corporation to deduct any such sum or sums from any moneys due or to become due to the contractor under this contract.

Sometimes a clause is added requiring a forfeiture from the contractor for default, as, for example, this from the borough of Bolton :

The contractor and every sub-contractor under him shall in the execution of the said works pay to each of the workmen employed by him therein the standard rate of wages for the time being payable in respect of such like employment within the town or other place where that employment takes place, and in case there be any default on the part of the contractor or any sub-contractor in this respect the contractor shall forfeit and pay to the corporation the sum of £50 as liquidated damages for such default, and after notice from the corporation of any repeated like default a further sum of £50 for every repetition of such default.

A clause inserted in the borough of Brighton goes much farther, and covers not only wages, but hours of labor and forfeiture provisions, and provides for arbitration in case of disagreement, as follows :

The contractor shall pay to every mechanic, artisan, craftsman and laborer employed by him in the performance of this contract, wages at a rate not less than the standard rate of wages in force in the borough of Brighton in their several trades at the date of this tender, such standard to mean the rate agreed upon by the masters' and workmen's associations in Brighton; and in case of any breach of this condition the contractor shall pay to the corporation by way of liquidated damages a sum equivalent to the difference between the aggregate amount of the wages actually paid by the contractor to his aforesaid workmen or any of them, and the aggregate amount which by this condition the contractor is required to pay to such workmen on account of the same services, and such sum may be deducted by the corporation from any moneys which may become payable to the contractor under this contract, or may be recovered by them by action. The contractor shall, with respect to each class of labor employed in the performance of this contract, observe the recognized hours of labor usual in the borough in respect of that class, and in case of any breach of this condition the contractor shall pay to the corporation by way of liquidated damages a sum equivalent to the difference between the aggregate amount of the wages actually paid by the contractor to his aforesaid workmen or any of them, and the aggregate amount which he would have paid to such workmen had he conformed to the requirements of this condition, and such sum may be deducted by the corporation from any moneys which may become payable to the contractor under this contract, or may be recovered by them by action. In case of any difficulty or dispute arising between the corporation and the contractor concerning any of the matters mentioned in or arising out of the two last preceding conditions, the same shall be referred to arbitration, and all the provisions of the arbitration clause hereinafter contained shall apply thereto.

In Manchester the following condition is inserted :

The contractor declares that he now pays, and he hereby undertakes that he, his executors, administrators, assigns, or sub-contractors, or any other person who may for

the time being be bound or authorized to execute or perform the obligations of the contractor under this contract, or any part of it, shall and will continue to pay during the subsistence of this contract to his or their workpeople the regular standard wages obtaining in the city of Manchester or the district in which the work is executed, as the case may be.

In the borough of Halifax the contractor is required to pay "all average workmen" wages "not less than the minimum standard rate of wages in each branch of the trade in the district in which the work is carried out," and the term "average workman" is thus defined :

An average workman shall be understood to be a man able to compete with his fellow workmen ; but if by reason of old age, infirmity of mind or body, or bodily deformity, he is unable so to do, then it shall be competent for the employer and employé to agree upon a fair rate of remuneration.

In the borough of Leeds it is expressly provided that the conditions (as to wages and hours) shall not apply "to any trade or trades during the existence of a general lock-out in such trade or trades ;" but the stipulation is also inserted that "the corporation shall be the sole judges as to whether such a general lock-out exists." And it is also provided that :

The contractor shall, to the satisfaction of the council, provide and keep proper books, in which shall be correctly and promptly entered from time to time the names of, the wages paid to, and the hours of labor observed by all workmen employed by him, whether in or about the execution of this contract or otherwise, and shall from time to time, when required by notice in writing under the hand of the town clerk, produce the same or any of them to him or the deputy town clerk, who shall be at liberty to inspect and take copies of or extracts therefrom. The contractor will, whenever required so to do by notice in writing under the hand of the town clerk or deputy town clerk, attend, and procure the attendance of any one employed by him, before the council, or any committee thereof, to give such explanations and information with regard to the observance or non-observance of the stipulations herein contained as may be required of him or them, but it shall not be necessary for such council or committee to require such attendance, explanations, or information before determining this contract, if they decide to do so, in the manner hereinafter mentioned.

These citations sufficiently illustrate the practical method of dealing with the question in England under contracts for public works, and are interesting in view of the development of opinion in the same direction here. The wide adoption and apparently satisfactory operation of such provisions will unquestionably lead to the general approval of the principle involved.

QUARTERLY REVIEW OF EMPLOYMENT AND EARNINGS.

QUARTER ENDING JANUARY, 1899.

The regular quarterly summary of conditions affecting labor, employment, earnings, and cost of living, in the industrial centres of the Commonwealth, based upon special reports and comparisons made by agents of the Bureau, for the current quarter (ending January, 1899) follows :

BOSTON. Business in the building industry shows an improvement latterly over conditions as they existed a year ago. It is conceded that more plans are in circulation, many of them held over from last season, and that more contracts are being awarded. Owing to the large number competing for contracts, margins are very close, although prices must naturally advance somewhat with the increase in cost of stock. Some of the leading builders and lumber dealers predict that operations in 1899 will begin early, and that more building will be carried on in Boston than during any year for the last 25 years. This information is based upon the knowledge of plans in the hands of architects, which are not quite ready for estimates, and upon improvements contemplated within the city of Boston. The erection of the new Southern Station will cause a general change to be made in the character of the surrounding buildings. Builders whose operations extend outside of the city limits to suburbs in the immediate vicinity, also state that the tendency is toward general improvement, and that there are indications of a good year's business. There is rather more jobbing work under way than there was last year, caused by alterations due to changes in the character of some sections of the city. The building industry is usually the last to feel the effects of a general business depression, and also the last to recover as business improves; but everything at the present time indicates that activity in this line has already commenced. All concerns are running full time, but with reduced employment, the winter months being naturally the dull months in this industry. Rates of wages have not changed since the advance in wages of masons last May. Cost of materials has advanced generally, including lumber, hardware, paper, paints, etc. The advance is particularly noticeable in hard pine, spruce, and brick. Collections are fairly good, and conditions respecting them have not changed materially for a year.

In the brewing industry it is the universal testimony that the fall trade has not equalled that for the same season last year. While a few concerns report a marked improvement, it is due in nearly every case to an increase in the number of customers rather than to the quantity ordered by old customers. The reasons given for this condition of affairs vary with different concerns. The government tax has probably something to do with it, as it lessens the quantity retailed to customers for a given price; diminished general employment, curtailing the consumption of luxuries, also has its effect. The breweries are running full time, but averaging only about 72 per cent of full capacity. Rates of wages are the same as they have been during the past year, this being fixed by the unions. Materials are generally higher than last year, and for some articles are higher than in August. These changes, however, do not generally affect present business conditions or employment, as most brewers obtain their supplies by contract for a specified period. While there is a tendency to lower selling prices, and more concessions of a general nature have to be made to customers, brewers have been able thus far to practically maintain the prices of last summer. Some brewers report that there is a tendency to buy cheaper grades. Collections are slow generally, although some report an improvement over last year; but, as a rule, bills are harder to collect and longer credit is asked for by the retailers.

In the manufacture of temperance drinks, demand is reported not as good this fall as in 1897. The approach of cold weather at an earlier date curtailed the output. Employment is upon full time, but diminished, and the works have not been run to their full capacity. Wages have not materially changed, but stock, particularly flavorings and extracts, has advanced about 10 per cent. Selling prices remain about the same as they have been. Collections are generally a little better than last year.

In Printing, Publishing, and Bookbinding, it is almost universally reported that there is an improvement over the business for the same season last year. While many report this as slight, others are obliged to run overtime. Generally speaking, the fall is the busy season in this industry, although there are exceptions to this rule. The only concerns reporting no improvement over last year are a few having a limited number of special customers. Large numbers of small orders are now being taken, and the indications are favorable for a general continuance of prosperity. All concerns are running full time, many of them, as stated, on extra time; and while fully three-fourths are running to their full capacity, the output in the others will vary from 66 per cent to 90 per cent of their full capacity. These conditions imply enlarged employment in the industry. Rates of wages are unchanged since the 54-hour scale was established. There has been no material change in the cost of stock, except that there is a downward tendency in the prices of papers.

Newspaper stock has dropped five per cent since the September report; envelopes, however, have advanced 15 per cent. There has been no advance in prices for printing, and generally they are as low as ever, although most of the firms claim to be able to maintain the prices which have governed for some time past. A few concerns, however, report better prices, and assert that customers are not so exacting as they have been. Collections are from slow to fairly good, with a tendency to improvement on small accounts; in large accounts they are usually good.

Improvement is noted in Machines and Machinery as compared with the final months of 1897, with increased employment and earnings as compared with the quarter covered by our last report. Nearly all the firms reporting ran on full time, but none of them to full capacity. Rates of wages remain unchanged. Collections are reported good. As in nearly every other industry, the cost of raw material has increased, while the selling value of the product remains either unchanged or without increase in proportion to the advance in the price of stock.

In Metals and Metallic Goods, the majority of the firms report improvement in conditions as compared with the final quarter of 1897, while a few establishments consider conditions not as good. There has been a large advance in the cost of raw material in this industry, especially in the price of copper and combination metals into which copper enters. Manufacturers, however, nearly all report that they are not able to advance the selling price of their product sufficiently to meet the increased cost of stock. There has been no change in rates of wages. Collections are reported fair. The returns in this industry indicate slightly less employment and earnings for the final week of the present quarter as compared with the final week of the quarter covered by our last report.

In Musical Instruments and Materials there has been much improvement since our last report, with increased employment and earnings. While the establishments are not running to full capacity, it is generally reported that conditions are much better than for the corresponding months in 1897. No material change is reported, either in prices of stock, or product, or wages.

In the clothing industry, as compared with the final months of 1897, the general conditions denote improvement; a few firms, however, have not apparently shared in this improvement. Employment and earnings have increased, as indicated by a comparison between the final week of the present quarter and the corresponding period of the quarter covered by our last report. There has been no change in rates of wages, nor any material change in the cost of stock or selling price of product.

Firms employing 6,910 persons at the close of the preceding quarter show an aggregate decline to 6,797, or 1.64 per cent; the aggregate weekly payroll dropping from \$82,220 to \$78,799, a decline of 4.16 per cent. These declines are largely due to seasonal considerations affecting certain industries, especially building.

BROCKTON. The majority of the firms reporting in the boot and shoe industry state that conditions have improved as compared with the final months of 1897. A few, however, find no material improvement. Employment and earnings were somewhat diminished at the close of the present quarter as compared with the corresponding week of the quarter preceding, mainly for reasons due to the difference of season, the establishments generally running on reduced time, and to less than full capacity. The decline in persons employed in the establishments reporting was 5.67 per cent, while the weekly payroll for the particular weeks compared declined 12.64 per cent. The outlook for the future, however, is better than for some months past. In general, cost of stock, selling prices, and wages have not changed since our last report.

CAMBRIDGE. In Metals and Metallic Goods improvement is noted as compared with corresponding months in 1897, and increased employment and earnings for the final week of the present quarter as compared with that of the preceding quarter. Here, as elsewhere, the upward tendency of the cost of stock is reported, without corresponding increase in the selling price of product. There has been no change in wages. None of the establishments are running to full capacity, and some of them during December ran on short time. Comparisons for the final week of the present and the preceding quarter show a gain in the number of persons employed, and an increase in the aggregate weekly payroll.

CHICOPEE. A better outlook appears in the cotton industry than obtained during the last quarter of 1897. Employment, however, was slightly less during the last week of the quarter under consideration than in the corresponding week in the quarter immediately preceding, owing to the prevalence of an epidemic of the grip. Earnings in the aggregate have slightly increased. The outlook is much better than previously, and the feeling more hopeful. Establishments reporting 2,973 persons employed during the final week of the preceding quarter, show 2,881 for the corresponding week covered by the present report, a decline, of 3.09 per cent, the reason for which is stated above. The aggregate payroll, however, increased from \$17,109 to \$17,225, less than one per cent.

FALL RIVER. Much the same conditions exist in Fall River as reported in New Bedford. The outlook in the cotton industry is much better than reported for some months. The demand, reflected, of course, in the activity of the mills, is much better than for the corresponding months in 1897, and one of the mills visited reported that the demand for its particular product was better than at any time for the past three years. Mills are generally running on full time, and nearly all to their full capacity. The combination recently made by the mills regulating the sale of the product is said to have a favorable influence upon the conditions of employment. On the whole, of course, the year 1898 has been

a poor one in the textile industry. The reduction in wages reported during the early part of the year, the restriction in number employed, and general restriction in output, has correspondingly diminished earnings and profits. The feeling, however, seems to be that the present improvement is simply the forerunner of much better conditions in the future, and prospects are bright for the coming year. Comparisons from identical establishments for the final week of the present and the preceding quarter, show an increase in persons employed from 3,774 to 3,926 a gain of 4.03 per cent; and an increase in the weekly payroll from \$23,210 to \$24,006, a gain of 3.43 per cent.

HAVERHILL. The general condition of the boot and shoe industry shows a decided improvement over that of our last report. Almost all of the factories are increasing their output, and some are running over-time to fill orders. A few concerns, however, report the demand to be about the same as for the same season last year, or only slightly better. A general continuance of conditions as they exist at present is anticipated, with even a decided improvement upon these. Most of the factories have been running full time during the autumn, and also to full capacity; but a few have only run from 67 to 75 per cent of full time, and from 50 to 75 per cent of full capacity. Generally speaking, rates of wages are practically the same as at our last report, although it is stated that they are somewhat higher than a year ago. Stock is a trifle higher, and there has been a general increase since last spring. Nominally, there has been no advance in selling prices, and generally boots and shoes are manufactured to a price fixed in advance. Collections are reported good by all, and by most concerns as excellent. It is generally stated that they were never better than at present.

In the slipper industry there is a much better volume of trade this fall than last, probably a third more during the last eight months of the year than for the corresponding season in 1897. Factories are generally running full time, but to not more than 70 to 80 per cent of their capacity. Wages have not changed in this branch since our last report. There is a tendency to higher prices for stock. There is a slight advance in selling prices on certain grades of product, but generally no material change since our last report. Collections are excellent.

In the cut stock industry, there is reported improvement in demand and selling prices for soles and counters over that of last year. Most factories have been running full time, and from 67 to 90 per cent of their full capacity. Rates of wages are unchanged since our last report, and selling prices of product are a little firmer. Collections are good. In shoe stitching there are indications of better business, and already it is very much ahead of the corresponding season in 1897. Some of the larger factories are running full time and to full capacity, with increased force, and although some of the smaller establishments are running only about three-fourths time and to only about 40 per cent capacity, all seem to

consider the outlook promising and expect an increase of business. In wages, there have been a few minor changes due to variations in styles of shoes made, but generally speaking, rates remain as at our last report. Stock is higher, particularly cotton thread and cement. Rather better prices for this kind of work can be obtained now, during the busy season, than during the summer; but as compared with the same season last year prices have not materially changed. Collections are reported to be satisfactory.

The number employed during the final week of the present and preceding quarter, by identical establishments reporting, shows an increase from 2,125 to 2,839, a gain of 33.60 per cent; the weekly payroll in these establishments rising from \$18,307 to \$28,150, a gain of 53.77 per cent.

HOLYOKE. In the paper industry there is apparently no material improvement for the quarter as compared with the same months in 1897. Of 10 large concerns visited, two report business as somewhat better, three as practically unchanged, while five report that demand is not as good as in 1897. As compared with the quarter ending September, 1898, employment remains practically unchanged, and earnings are only slightly larger in aggregate amount. There is practically no change in the cost of material or in the selling price of product, although in the cheaper grades there is a slight downward tendency.

In the cotton industry demand as compared with the previous quarter is unchanged; employment has, however, slightly increased, and there is also an increase in the aggregate amount disbursed in wages. The mills are running full time, but not always to their full capacity. Collections are reported as good.

In the woollen industry conditions are not as favorable as for the last quarter of the year 1897. The mills visited were running on full time, but not full capacity. As compared with the previous quarter, employment has slightly increased and there is also an increase in earnings. Collections are reported as good.

For the final week of this and the preceding quarter, the number employed in the establishments reporting at each date, rose from 6,623 to 6,800, a gain of 2.67 per cent; the aggregate payroll for these persons rising from \$47,032 to \$49,048, a gain of 4.29 per cent.

LAWRENCE. In Cotton Goods there is a decided improvement in demand over that for the same season in 1897, and improvement has also been marked since the first of September. The yarn mills are running to full capacity. In the duck mills demand is greater than the supply. There is a large amount of government work being done on new contracts. The mills are running full time, and as far as the duck machinery is concerned, to full capacity. Print cloths are selling very much better than formerly. The mills are running full time and to about 75 per cent of their capacity. Prices have advanced from $1\frac{7}{8}$ to $3\frac{3}{8}$ cents since our last re-

port, and there is a tendency toward still higher prices. In printed goods also there is similar improvement. Establishments are running full time and to about three-fourths of their capacity. Prices have advanced proportionately with cost of stock, and there is a strong upward tendency. In white goods there is a marked improvement over the conditions of a year ago. Some of the mills have not shut down during the year, and the outlook is considered good for a continuance of these conditions for some time. Establishments are running full time and generally to full capacity, although output is in some cases restricted on account of inability to obtain a sufficient number of loom operatives. Selling prices have advanced, and it is generally agreed that the outlook for good business is excellent. Rates of wages remain generally unchanged since our last report. Raw cotton has advanced approximately $1\frac{1}{4}$ cents per pound. Collections are good.

In Woollen Goods the situation is not as good as in 1897. Demand during the year has been comparatively limited. Various reasons are given for this condition of things, but the opinion most generally entertained is that speculative conditions in anticipation of the enactment of the Dingley bill resulted in an overstocked market, and that this surplus has not all been disposed of. There are indications, however, of a marked improvement in the near future. In the meantime low prices prevail, and unusual endeavors are necessarily made to dispose of product. Establishments are running from 75 per cent to 90 per cent of full capacity. Rates of wages remain unchanged, and the cost of stock is practically the same as at our last report. There is no material change in selling prices. Collections are generally reported from fair to good.

In worsteds the demand is about the same as that of a year ago. There was depression during the season of 1898, but business revived again during the autumn and reached the level of the corresponding months in 1897. Mills are running full time and to from 80 to 90 per cent of their capacity. Selling prices are substantially the same as in July, as far as the mills are concerned. Rates of wages are the same, and the cost of stock practically so.

The establishments reporting for the final week of the present and preceding quarters, show an increase in persons employed from 14,180 to 15,683, or 10.60 per cent; and in wages paid from \$100,871 to \$114,253, a gain of 13.27 per cent.

LOWELL. In Cotton Goods there is a material increase over the demand of last year, and improvement seems likely to continue. A marked increase is noted since August. Mills are running full time, and well up to their full capacity. Rates of wages are practically unchanged. Cost of stock has advanced, as noticed in other textile centres. Selling prices have advanced also, but not in proportion to the increase in the cost of cotton. Collections are generally excellent.

In Woollen Goods there is great expectation of a general improvement in the open market, but prevailing business conditions are not nearly as good as during the final months of 1897. Demand has been very limited, and, indeed, is only active in special fabrics and government goods. The reasons which account for similar conditions in Lawrence apply here, although general business depression and lack of employment among the masses is quoted as an active agent in the general depression in this line. Some mills are running practically full time, and generally from 80 per cent to full capacity. Rates of wages have been unchanged since our last report, and there are no material changes in the cost of stock. Selling prices are about the same as in July. Collections are generally good.

In Machines and Machinery (mainly cotton mill machinery), there is generally a very great improvement over conditions obtaining a year ago. In some concerns this is estimated at about 33 per cent. Concerns are running full time, and while some are running to full capacity, others with exceptionally large plants are running only about one-half. Rates of wages are unchanged. There is not much change in the cost of stock, except in copper which has advanced considerably. In cotton pickers there has been no advance in selling prices since July, the combination prices being maintained. In fact, in the industry in general, there has been no change in selling prices. Collections are reported good.

There is a trifle better demand for bobbins, which has shown gradual improvement as the end of the year approached. Factories are running full time, with about three-fourths capacity. Rates of wages are unchanged. The tendency is toward stiffer prices in the cost of stock. Selling prices have not changed, however.

In the manufacture of heating apparatus demand is about the same as that of a year ago, no material increase being noted. Works are running full time, and to about 50 per cent of their capacity. Rates of wages remain at the old figures. Cost of stock has advanced slightly, but selling prices remain the same. Collections are rather slow.

Establishments reporting 14,855 on the rolls for the final week of the preceding quarter show a gain for the corresponding week covered by the present report to 16,043 or eight per cent; the payroll rising from \$96,555 to \$105,867, or 9.64 per cent.

LYNN. Reports from the boot and shoe industry vary. An analysis of the answers received, when compared with the firms furnishing the same, indicates that in ladies' goods the larger establishments are experiencing a marked improvement over the same season in 1897. Customers are more liberal in their orders than they have been for some time, and indications are favorable for a continuance of good business throughout 1899.

In boys' and youths' shoes business has increased largely. In seven cases out of 10, customers are ordering more goods than they have for a

long time. Some firms report more business this fall than they have ever done before.

In ladies', children's, and misses' shoes firms manufacturing specialties also report a great increase in demand, with a strong belief in its continuance; but many of the smaller concerns, manufacturing old staple lines of goods, report either no improvement or less demand and inquiry than for the same season in 1897. Some of the houses which report no improvement or not so much activity as in 1897 are, however, quite sanguine that improvement is near at hand. Quite a number of orders for foreign countries have been received, notably from Johannesburg (South Africa), Porto Rico, and Cuba. American boots and shoes are superior to those made by foreign manufacturers, and although some foreign customers require that particular patterns be duplicated, many are working into the American styles, and it seems probable that in the near future, as soon as American goods have become well-known, the demand will be largely for American styles. Western competition still continues to exercise an adverse influence in the industry. Nearly all factories have been running full time during the autumn, and most of them to their full capacity, there being some instances in which the capacity of the shop had to be increased in order to do the work ordered. A few, however, run from 75 per cent to 95 per cent of their capacity, some of these being quite large establishments. Rates of wages are practically the same, not having changed materially for some time. The tendency of prices for stock is toward higher figures, although there has been no absolute change, with the exception, perhaps, of a slight increase in soles and goat. Although nominally no advance in selling prices has been made (nearly all manufacturers making goods to be sold at a fixed price), retailers are enabled to get their prices, and where there has been any advance in stock it is necessary to do this, although this is probably counterbalanced by continued concessions to the demand for changes in detail. Collections are generally very satisfactory, and range from fair to excellent.

In the manufacture of slippers there is little improvement over conditions prevailing in 1897. Some concerns have been running not more than half time. Wages are unchanged. There has been a slight advance in soles, and prices for stock are stiffening generally. Selling prices of product remain about the same.

In the leather industry (dongola goat), some houses report a marked improvement in demand over last year; the larger part consider conditions unchanged; while a very few report diminished demand. They have all been running full time, however, and from 66 per cent to full capacity. Rates of wages have not been changed during the past three months, and while the cost of stock has generally not advanced, there is a firmer tone to the market, and for some qualities prices have advanced fully five per cent. In selling prices there is a better tone to

the market, although no actual advance has been maintained, except as far as the product is made to a price in this business the same as in shoes. Collections, although a little slow the first part of the fall, are now, as a rule, good.

In the manufacture of electrical goods the number employed has increased from about 1,600 early in 1898 to 2,700 at the present time, which implies an increase in the amount disbursed in weekly wages from \$16,000 to about \$27,000. This is undoubtedly a great benefit to tradesmen, particularly those in the vicinity of the Thomson-Houston works. The increase in force is due wholly to an increase in demand for the goods manufactured by the company, and not to the removal to this city of work done in other places. So great has been the increase in business that a large building for the works is now being erected. Everything seems favorable for a continuance of prosperity in this line. Employés have been working full time, and, as a whole, the works have been running to full capacity. Rates of wages have not changed during the year. In the cost of stock the tendency is toward higher prices. Most of the work of this company is done under contract, so that collections are fixed; and it is impossible to make comparisons as to selling prices.

Persons employed in the same establishments for the final week of the present and preceding quarters, declined from 2,084 to 1,919 or 7.92 per cent; the weekly payroll declining from \$18,723 to \$17,883, or 4.49 per cent. This comparison does not include the electrical industry.

NEW BEDFORD. There is a much better demand for the products of textile mills here than for the last quarter of 1897, and the outlook is considered much better than for many months. The mills are generally running on full time and much nearer their full capacity than formerly. Rates of wages remain the same as reported in the last Bulletin. The number employed has not greatly changed, but the amount disbursed in wages shows an increase as compared with the preceding quarter. The cost of raw cotton has increased somewhat. The selling value of the product has also advanced, but not sufficiently to meet the increase in the price of raw material. Collections are reported as good. For the last week of the present quarter, 5,231 persons were on the rolls of establishments reporting 5,254 during the last week of the preceding quarter, the change being immaterial. The payroll for the week rose, however, from \$33,680 to \$34,525, a gain of 2.51 per cent.

Peabody. In Leather (sheep morocco), demand has been increasing since early autumn, and generally speaking is very much better than a year ago, although a few concerns report it as unchanged; others, however, estimate the improvement as high as 20 per cent. It seems to be the general impression that the proposed imposition of 20 per cent duty upon salted skins will seriously damage the business in the East, inasmuch as the profits will not warrant the payment of this amount or anything like it. This duty, it is alleged, will benefit the slaughterers

of sheep, but most of the factories in this vicinity finish salted skins. One large concern reports the work done as about the same in amount as during the corresponding season in 1897, but expects a large increase in the near future, and proposes an extension of plant to meet it. Factories have generally been running full time, except in cases where business changes have necessitated a temporary reduction. The shops have also been generally running to their full capacity, although some report that they have employed no more than 80 per cent of their full force. Men are continually being taken on, however, in most shops, which is, of course, an indication of improvement. Rates of wages have not changed. There is a very slight advance in the cost of raw material, which will be very much augmented if the 20 per cent duty is added. Very slight, if any, advance can be obtained in selling prices, and competition is so close that the house that can manufacture the best goods for a fixed price gets the orders. Collections are generally prompt.

In the goat morocco branch of the industry demand has been very much better than in the autumn of 1897, and a still greater improvement is expected. Southern and western competition is severely felt in this line, and some of the less fortunate houses attribute the lack of improvement to this cause. Factories have generally been running full time, the capacity varying from 65 per cent to full. There has been no change in the rate of wages, and the cost of stock is about the same as it was at the beginning of the quarter. Selling prices have not changed, and collections are reported good.

In the upper leather branch, conditions are reported not as good as at the close of 1897; in fact, the difference is quite marked. One concern has closed down entirely since our last report. Generally speaking, factories have not been running more than three-fourths time or to more than 60 per cent of their capacity. Rates of wages are about the same as at the last report, and the cost of raw material has advanced some 10 per cent since September, with no material advance in selling prices.

In Machines and Machinery, business is said to be poorer than in the last quarter of 1897, and it is anticipated in some establishments that if the 20 per cent duty be imposed upon salted skins, this industry (mainly leather machinery) will be badly affected. Shops have been running full time and to full capacity as the plants existed in September, but owing to additions to plants only about 67 per cent of the full capacity as it exists at present is being used. Rates of wages are unchanged. Stock has advanced, particularly copper and its combinations. Selling prices are practically unchanged. Collections are reported poor, the reason being given that manufacturers will generally settle their manufacturing bills before settling bills for machinery.

Comparisons for the final week of the present and the preceding quarter show a decline in persons employed from 1,214 to 1,163, or 4.20

per cent; the payrolls for these weeks being respectively \$11,492 and \$10,742, a decline of 6.53 per cent.

WOBURN. Reports received from the leather industry in Woburn do not show improvement, as compared with the final months of 1897; in fact, conditions do not seem to be so favorable. Complaint is made of the increase in cost of hides, without corresponding increase in the selling value of the product. A very slight decline appears in employment and earnings for the final week of the present quarter, as compared with the final week of the quarter preceding. Wages have not changed. While establishments are generally running on full time, they are not running to full capacity. Collections are fair.

The persons employed by firms reporting for the final week of the present and the preceding quarters show a decline in number on the rolls from 1,010 to 990, or 1.98 per cent; the weekly payroll changing from \$9,900 to \$9,937, a fractional percentage of increase.

WORCESTER. In Metals and Metallic Goods considerable improvement is shown as compared with the quarter preceding the one under consideration. Employment for the last week of the present quarter, as compared with the corresponding week in the quarter covered by the last report, shows an increase, and there is also a considerable increase in aggregate earnings.

In Machines and Machinery, as compared with the last quarter of 1897, opinions are divided. About half the firms visited, however, report an improvement. Employment and earnings show an increase for the last week of the present quarter as compared with the corresponding week in the preceding quarter. There has been a slight advance in the cost of some grades of iron and steel used as raw material, and a considerable increase in the cost of other metal; while, on the other hand, there has been but a slight change in the selling price of the product in the industry. This statement applies not only to Machines and Machinery, but to Metals and Metallic Goods. Establishments are generally running on full time, and in some cases on extra time. Collections are reported as good, and in general the outlook is extremely favorable. Manufacturers, especially in Machines and Machinery, feel that the coming year will be exceedingly prosperous.

In the woollen industry conditions continue unfavorable, both as compared with the final months of the year 1897, and also as compared with the quarter ending in September. Although the employes are working full time, employment is restricted as to numbers, and the mills are running much below their full capacity.

Conditions in the building industry remain unchanged. Owing to the usual seasonal depression, employment is below that for the preceding quarter.

In Worcester, for the last week of the quarter covered by the present report, the firms reporting had upon the rolls 5,501 persons as against

5,122 for the last week of the preceding quarter, a gain of 7.40 per cent. The weekly payroll increased from \$48,793 to \$53,451, a gain of 9.55 per cent.

Cost of Living. The changes in retail prices during the fall months have been very slight, and the general level of last August continues, except where articles are affected by seasonal considerations. Teas have advanced from 15 to 20 per cent, except Japan teas. Coffees are unchanged. The prices of canned goods are slightly firmer, the jobbers having advanced rates about five per cent since August. Sugar is slightly lower. In provisions, fractional declines per pound are noted in pork products, beef, lamb, and mutton. Poultry varies slightly, upward or downward, according to supply and seasonal conditions. Eggs are considerably higher at the close of the present quarter than at the beginning. The changes noted in retail prices, however, do not materially affect the cost of living of the wage worker.

Dealers nearly all report a tendency toward increased consumption, and easier financial conditions. While the increased demand is not as yet very marked, except possibly for clothing, due to usual fall and winter purchases, nevertheless, in nearly all lines they find business better than during the closing months of 1897, and note improvement since the quarter covered by our last report, implying increased earnings and improved industrial conditions generally. The holiday trade was satisfactory. Although prices ruled low, this was offset by increased sales.

To summarize: The reports by industries indicate a decline in the number employed for the last week in the present quarter as compared with the preceding quarter, in the following industries: Building; Cooking, Lighting, and Heating Apparatus; Liquors and Beverages (not spirituous); Liquors: Malt, Distilled, and Fermented; and Paper. The decline in the paper industry is so slight as to indicate that conditions were practically unchanged. The decline in Building, and in Cooking, Lighting, and Heating Apparatus, is due to seasonal conditions, not unusual. On the other hand, the following industries show in a similar comparison increased employment: Boots and Shoes; Clothing; Cotton Goods; Leather; Machines and Machinery; Metals and Metallic Goods; Musical Instruments and Materials; Printing, Publishing, and Bookbinding; Print Works, Dye Works, and Bleacheries; Woollen Goods; and Worsted Goods.

On the whole, establishments in the different industries named, which reported for the last week in the preceding quarter 67,224 persons on the rolls, report for the last week of the present quarter 70,927, an increase of 5.51 per cent. The aggregate amount disbursed in wages rose from \$520,759 to \$556,555, a gain of 6.87 per cent.

By cities, a comparison of corresponding weeks in this and the previous quarter shows a larger number employed in Cambridge, Fall River,

Haverhill, Holyoke, Lawrence, Lowell, and Worcester; while a smaller number appears in Boston, Brockton, Chicopee, Lynn, New Bedford, Peabody, and Woburn. The change in New Bedford was very slight, and where diminished employment was shown in any of the other cities, it ranged from 1.64 per cent in Boston to 7.92 per cent in Lynn.

So far as can be determined from the returns, a larger amount was disbursed in wages in Cambridge, Chicopee, Fall River, Haverhill, Holyoke, Lawrence, Lowell, New Bedford, Woburn, and Worcester; and a smaller amount in Boston, Brockton, Lynn, and Peabody.

In some cases the local returns were affected by the fact that the last week in December, which was selected for the final week in the comparison, was subjected to stoppages and temporary reductions in the working force due to the holidays.

It is gratifying to be able to report the marked improvement in general industrial conditions, sufficiently indicated by the preceding condensed statements. The reports are more satisfactory than any which have been received by this Department since the prolonged industrial depression which began in 1872. While it does not appear that we have completely recovered from that depression, a much better feeling exists, and there can be no doubt that the year 1899 will witness enlarged operations, with more general and more permanent employment, accompanied by larger disbursements in wages than in any recent year.

There is apparently a tendency, not yet developed into tangible results, except in a few instances, toward higher wage rates, and increases will no doubt follow the general improvement in conditions.

It will be noted that in many cases an advance in the cost of materials is indicated without a corresponding advance in the selling price of product. This, if continued, will affect profits, and some manufacturers have stated to our agents that reductions in wages being out of the question, other expedients must be adopted in order to enable the business to be profitably conducted. In some industries this has already led to combinations of competing concerns under single management for the purpose of introducing economies in manufacture, reducing selling expenses, etc.; and the movement in this direction still continues, and will undoubtedly be carried much farther. It is probable, however, that after the revival in business has continued some increase in selling prices will be made, removing the disparity caused by the advance in the cost of materials without a corresponding change in selling price.

LABOR BULLETIN

OF THE COMMONWEALTH OF MASSACHUSETTS.

No. 10.**APRIL.****1899.**

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDGIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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MASSACHUSETTS LABOR BULLETIN.

No. 10.

APRIL.

1899.

THE LABOR LEGISLATION OF 1898.

It is usual in this number of the Bulletin to present a summary of the legislation of the previous year relating to hours of labor and to the employment of women and children. The subject was first considered in Bulletin No. 3, issued in July, 1897, and therein brought up to January 1, 1897. The Bulletin for April, 1898, carried the record forward up to the first of January, 1898.

During the year 1898 practically nothing was added to the statute books in any State relative to the hours of labor or to the employment of women and children. The statutes have been codified in Maryland and Ohio. Indeed, the labor legislation of 1898 was exceedingly restricted in volume, and its effect may be summarized in brief space.

In Vermont, Labor Day was established as a legal holiday. The statute in New York relative to the labor of convicts was so changed as to provide that no printing could be done by convict labor except such as might be required for the State penal and charitable institutions, or for reports relating thereto. In the new constitution of Louisiana, provision is made that after the expiration of present leases convict labor shall no longer be leased, but may, by authority of the legislature, be employed on public works, convict farms, or in manufacturing under the control or administration of the State. The labels and trade marks of labor organizations may be registered, and are placed under legal protection in Louisiana and Virginia. A bureau of labor and industrial statistics was established in Virginia.

The labor legislation of Massachusetts for 1898 has been presented in full in a report of this Department.* Summarized, it provides for a textile school in the city of New Bedford; amends and strengthens the law relative to the manufacture of clothing in tenements and dwelling houses; amends the act relative to the inspection of steam boilers; provides for the employment of prisoners, as far as possible, upon articles and materials to be used in the several public institutions of the Commonwealth, and permits the General Superintendent of Prisons to employ prisoners in preparing road material by hand labor; provides that the labor of prisoners may be used in reclaiming and improving waste

* Twenty-eighth Annual Report of the Statistics of Labor, pp. 356-367.

and unused lands, not exceeding 1,000 acres in area, which may be taken in fee by the governor and council for that purpose. On such land, when thus taken, the Governor may establish industrial camps for prisoners employed thereupon. It also extends the operation of the law relative to the weekly payment of wages, which was previously restricted to corporations and contractors, and to persons and partnerships engaged in manufacturing having more than 25 employés, so as to remove the limitation fixing the number of employés. Thus the law now applies to corporations and contractors, and to any person or partnership engaged in any manufacturing business in the Commonwealth. The law relating to the employment of children and their schooling was also changed so as to provide that no child under 14 years of age shall be employed in any factory, workshop, or mercantile establishment, and that no such child shall be employed in any work performed for wages or other compensation during the hours when the public schools of the town or city in which he resides are in session, or at any work before the hour of six in the morning or after the hour of seven in the evening, and no child under 16 years of age shall be employed in any factory, workshop, or mercantile establishment, except under provisions as to education fixed by the law, including the filing of an age certificate in terms and under such provisions as the law contains. A statute was also enacted prohibiting deductions in the wages of women and minors employed in manufacturing or mechanical establishments for the time during which the machinery is stopped, if said women and minors were refused the privilege of leaving the mill during such time; and also providing that none of the employés shall be compelled to make up time lost through the breaking down of the machinery, unless compensated at their regular rates of wages, if said employés had been detained within their workrooms during the time of such breakdown.

It will be seen from this review, that, upon the whole, the labor legislation of Massachusetts during the year 1898 exceeded in its extent and range that of any other State.

It is customary to present in connection with this review, such court decisions as have been rendered during the preceding year relative to hours of labor, but cases of this kind have not come directly under revision during 1898. Indirectly, however, the eight-hour law in Kansas has been brought into a case which is somewhat curious, and owing to its peculiarities, interesting.

The eight-hour law in Kansas, passed in 1891, provides that eight hours shall constitute a day's work for all laborers, workmen, mechanics, or other persons then employed, or who might be thereafter employed, by or on behalf of the State of Kansas, or by or on behalf of any county, city, township, or other municipality in said State, except in cases of extraordinary emergency where it might be necessary to work more than eight hours for the protection of property or human life.

An ordinance of the city of Fort Scott, having for its purpose the collection of a poll tax to the extent of \$3, provided that if such tax were not paid in money, any male resident between the ages of 21 and 45, who was liable to the tax, might be required to perform two days' labor of 10 hours each on the streets of the city. A citizen of Fort Scott was restrained of his liberty by the marshal of the city pending a continuance of a prosecution brought against him in the police court for the non-payment of his poll tax. He applied for a writ of habeas corpus upon the ground, in part, that this ordinance requiring 10 hours' labor was in violation of the eight-hour law, which, as cited, provides that *eight* hours should constitute a day's work for laborers employed by the State, in any county or city. His petition was brought before the Supreme Court, and Judge Allen, all the justices concurring, granted the writ of habeas corpus, discharging the petitioner, and in connection therewith rendered the following opinion : *

It is contended on behalf of the respondent that this act has no application to the ordinance under consideration, because subdivision 34 (of section 11 of chapter 18 of the General Statutes of 1889, under the authority of which the ordinance in question was passed by the mayor and council of the city) authorizes the council to require the performance of two days' labor of ten hours each, and that this provision has not been repealed or amended either in express terms or by necessary implication. It is also said that a person working a poll tax under the ordinance is not employed by the city, within the meaning of the eight-hour law, but that the service required is in the nature of a tax imposed for the purpose of keeping the streets and alleys of the city in repair. It is often a matter of great difficulty to determine how far prior enactments may be changed or restricted in their operations by subsequent ones which are not in terms amendatory. It sometimes happens that the legislature has under consideration a special subject, which in some particulars is related to many matters concerning which prior enactments are in force. It has never been held that, in order to make the subsequent act valid and operative, all such prior enactments must be revised and amended so as to conform to the new act. It is only when the legislature, in passing the subsequent act, has under consideration the subject matter contained in the former enactment, and is working along the same legislative line, that the subsequent act can fairly be termed amendatory of the prior.

When the eight-hour law was passed, the legislature had under consideration the general subject of the length of a day's labor for those engaged on public works at manual labor, without special reference to the purpose or occasion of their employment. The leading idea clearly was to limit the hours of toil of laborers, workmen, mechanics, and other persons in like employments to eight hours, without reduction of compensation for the day's service. The validity of this act is not now attacked, but its effect only is discussed. It is impossible to draw a distinction between the case of one man who works out his own poll tax and of another employed by the city to work two days for \$3 collected from a third, who chose to pay in money rather than to work out his tax. That the latter laborer would fall strictly within the provisions of the law is clear. He would be a laborer employed on the public streets, and paid directly by the city. The eight-hour law being valid, he could not be required to perform more than eight hours of service for a day's work. Will it be contended that the man who, either from necessity or choice, works out his own tax must labor ten hours for a day, and may be forced to do four hours' more service to discharge his tax than the man employed by the city to render two days' service for \$3?

* 55 Pacific Reporter, 336.

A laborer on the public streets of a city falls as clearly within the letter, the spirit, and purpose of the statute as any person we can think of, and it was for the benefit of such that the eight-hour law was enacted. The ordinance under which the petitioner is prosecuted was passed in 1897. It exacts two days' labor of ten hours each. This is two hours of service more per day than the law authorized. The petitioner refused to comply with this requirement. He was not bound to enter into any controversy with the city officials as to the length of a day's employment by working eight hours, and then refusing to work longer. The city must first conform its requirements within the limits of the law. Not till then may it enforce them. The ordinance as passed is invalid, and will not uphold the prosecution against the petitioner. He is therefore discharged.

One other decision rendered during the year by a court of appeal, although not relating to hours of labor or employment, is of interest.

In 1897 the State of Pennsylvania passed an act relating to the employment of aliens. The preamble to the act recites that :

Whereas, it is the duty of the Government to enact such laws as shall protect the citizen laborers of America against the laborers of foreign nations who are brought in direct competition with our own workmen in nearly all the different branches of employment ;

And, whereas, thousands of foreign laborers come to this State for the purpose of obtaining employment, without any intentions of becoming citizens and who disclaim any allegiance to this State or nation, very few of whom ever pay any taxes for the maintenance of local, State or National Government, and are thus brought into unjust competition with the tax-paying American laborers, and greatly impair their welfare by depriving them of their employment, or preventing them from receiving fair compensation for their labor ; therefore,

Be it enacted, etc.

The facts set forth in this preamble have been frequently discussed, but the act following it is perhaps unique in the form of remedy which it proposed to apply. This remedy consisted of a tax at the rate of three cents per day which the statute levied upon all persons, firms, associations, or corporations employing one or more foreign born unnaturalized male persons over 21 years of age within the State, for each day each of such persons was employed. The act permitted the amount of the tax to be deducted from the wages of the employes and the proceeds were to be paid into the county treasuries ; one-half to be distributed among the school districts of each county, and the other half to be used for defraying the general expenses of the county government. The statute was quite explicit as to the method which it prescribed to be followed by the employers for the purpose of ascertaining the number of such persons as might be in their employ, and with respect to the reports thereof and payments therefor, which were to be made as previously cited.

The act took effect on the first day of July, 1897. One or two cases were brought in the lower courts, and the defendants having made the point that the act was unconstitutional this contention was sustained. In the case of the Juniata Limestone Co., Limited v. Fagley, a bill was

taken from the court of common pleas in Blair County to the Supreme Court of Pennsylvania, which rendered a decision on the 21st of July, 1898, affirming the conclusion of the lower court. The bill was originally brought by the Juniata Limestone Cö., Limited, against Millard H. Fagley et al. to enjoin the collection of the tax. Upon the bill Chief Justice Sterrett delivered the following opinion : *

This appeal is from the decree of the court below, wherein the act of June 15, 1897, entitled "An act regulating the employment of foreign-born, unnaturalized male persons," etc. (P. L. 166), was adjudged unconstitutional because it offends against the fourteenth amendment to the constitution of the United States, and also section 1 of article 9 of our own constitution. If the court was right in declaring the act unconstitutional on either ground, it necessarily follows that there was no error in awarding the injunction against the defendants, and the decree should be affirmed. The act in question clearly belongs to a vicious species of class legislation, which too often finds its way into our statute books, and we have no doubt as to its unconstitutionality on both grounds indicated by the learned president of the court below. It has already been adjudged void by the circuit court of the United States of the Western district of Pennsylvania. In *Fraser v. Conway*, 6 Pa. Dist. R. 555, the learned circuit judge, after citing authorities directly in point, said: "The tax is of an unusual character, and is directed against, and confined to, a particular class of persons. Evidently the act is intended to hinder the employment of foreign-born, unnaturalized persons over twenty-one years of age. The act is hostile to, and discriminating against, such persons. It interposes to the pursuit by them of their lawful avocations obstacles to which others in like circumstances are not subjected. It imposes upon these persons burdens which are not laid upon others in the same calling and condition. The tax is an arbitrary deduction from the daily wages of a particular class of persons. The equal protection of the laws declared by the fourteenth amendment to the constitution secures to each person within the jurisdiction of a state exemption from any burdens or charges other than such as are equally laid upon all others under like circumstances. *Railroad Tax Cases*, 13 Fed. 722, 733. In that case the court said: 'Unequal exactions, in every form, or under any pretense, are absolutely forbidden, and, of course, unequal taxation, for it is in that form that oppressive burdens are usually laid. It is idle to suggest that the case in hand is one of proper legislative classification. A valid classification for the purposes of taxation must have a just and reasonable basis, which is lacking here.' *Railway Co. v. Ellis*, 165 U. S. 150, 165, 17 Sup. Ct. 255. In the last-cited case, Mr. Justice Brewer said: 'It is apparent that the mere fact of classification is not sufficient to relieve a statute from the equality clause of the fourteenth amendment, and that in all cases it must appear, not only that a classification has been made, but also that it is one based upon some reasonable grounds, — some difference which bears a just and proper relation to the attempted classification, — and is not a mere arbitrary selection.'" The clear and convincing opinion of Judge Acheson, from which we have thus largely quoted, conclusively shows that the act of 1897, *supra*, cannot stand the test of the fourteenth amendment. We think it is equally clear that the act offends against our own constitutional mandate, "All taxes shall be uniform upon the same class of subjects," etc. Article 9, section 1. This sufficiently appears from the authorities above cited. It is very apparent from the act itself that the pretended classification of the subjects of taxation is arbitrary and illegal; but, in addition to that, it directly and intentionally discriminates against members of the same class, and creates an inequality among them. Further comment is unnecessary. We are clearly of the opinion that the conclusion reached by the court below is correct, and the decree is accordingly affirmed, and appeal dismissed, at appellants' costs.

We summarize the special factory provisions relating to hours of labor as they existed in the different States up to January 1, 1899.

California. For minors under 18 in manufacturing, mechanical, and mercantile establishments, or other place of labor, 60 hours per week.

New Jersey. For employés in bakeries and confectionery establishments, 60 hours per week, except that in emergencies employés may work additional time, not exceeding two hours per day. It is also provided, subject to the exception noted, that no more hours may be worked in any one week than will average 10 per day for the whole number of days worked during the week. For minors under 18 and all women in factories, workshops, and manufacturing establishments, 55 hours per week; except when engaged in preserving perishable goods, in fruit canning establishments, or in glass works.

Georgia. For all persons 66 hours per week in cotton or woollen factories, except engineers, firemen, watchmen, mechanics, teamsters, yard employés, clerical force, or help employed in cleaning and repairing. In *South Carolina* the law is similar, but employés may work additional time, not exceeding 74 hours per annum, to make up lost time or to prevent overwork in cleaning and repairs.

Illinois. Persons under 16 are limited to 60 hours per week in any employment.

Indiana. For minors under 16 and women under 18 in manufacturing establishments, 60 hours per week; and no more hours may be worked in any one week than will make an average of 10 per day for the number of days during which the employé works.

Louisiana. For minors under 18 and all women in factories, warehouses, workshops, clothing, dressmaking, or millinery establishments, or any manufacturing establishment or place where goods are prepared for manufacture, 60 hours per week.

Maine. For males under 16 and females of whatever age in manufacturing or mechanical establishments, 60 hours per week. (Females 18 years of age or over may contract to work in excess of the time limit, not exceeding six hours in any one week, or 60 hours in the year, for extra compensation, the consent of the parent or guardian being first obtained if the female is a minor.)

Maryland. For employés in cotton or woollen factories 10 hours per day, except that males over 21 may be employed outside this limit under special contract.

Massachusetts. For minors under 18 and all women in manufacturing and mechanical establishments 58 hours per week; for employés under 18 in mercantile establishments, 60 hours per week.

New York. For males under 18 and females under 21 in manufacturing establishments, except in case of repairs to avoid the stoppage of the works, 60 hours per week. For males under 16 and females

under 21 in mercantile establishments 60 hours per week, and not before seven in the morning nor after 10 in the evening; Saturdays are excepted, but the hours must not exceed 60 per week, and nothing in the law relating to mercantile establishments applies between December 15 in any year and the first of January following. In *Michigan* the law is the same as to manufacturing establishments, but as to mercantile establishments males under 14 and females under 15 may not be employed more than 54 hours per week.

Minnesota. For persons under 16 in manufacturing and mercantile establishments 10 hours per day.

New Hampshire. For persons under 18 and all women in manufacturing or mechanical establishments, 60 hours per week. In *Connecticut* and *Rhode Island* the law is similar, except that the age limit for minors is placed at 16 instead of 18 years, and in Connecticut the law applies to mercantile establishments also.

In *North Dakota* no person under 18 and no woman shall be compelled and no person under 14 permitted to work more than 10 hours per day in manufacturing or mechanical establishments. The law is similar in *Oklahoma* and *South Dakota*.

Ohio. For persons under 18 in mines and manufacturing establishments, 60 hours per week.

Pennsylvania. No minor, male or female, or adult woman can be employed at labor or detained in any manufacturing establishment, mercantile industry, laundry, workshop, renovating works, or printing office, for a longer period than 12 hours in any day, nor for a longer period than 60 hours in any week. Employés in bakeries and confectionery establishments shall not be required or permitted to work more than six days in any one week, said week to commence on Sunday night before six o'clock P. M., and to terminate at the corresponding time on Saturday of the same week. No person under 18 can be employed in any bakeries between the hours of five at night and nine in the morning, excepting the time required on Sunday night for setting the sponges for the night's work following.

Vermont. For persons under 15 in manufacturing or mercantile establishments, 10 hours per day; while in *Virginia* the labor of women, and of children under 14, is subjected to the same limitation.

Wisconsin. Persons under 18 and women cannot be compelled to work more than eight hours a day in manufacturing or mechanical establishments.

In some of these States there are statutes relating to the employment and education of children which limit the employment of such persons other than as limited by the provisions relating to minors in these special factory acts.

TRADE UNIONISM IN MASSACHUSETTS PRIOR TO 1880.

The Bureau is frequently called upon to supply data relative to early phases of the labor movement in this Commonwealth, and especially as to the growth and success of the trade union idea. The material for the present article was collected by a former special agent of the Department, Mr. John Carruthers, now deceased. It is now printed as an introduction to the historical account of trade unionism in Massachusetts, which may be completed by future articles, bringing the subject up to date. The early labor movements may be considered as terminating with the close of the year 1879, the date with which this chapter in the history of Massachusetts trade unions ends; and while but little had really been accomplished prior to that time, the movement towards a better organization of labor had begun, and its development subsequent to 1880 cannot be wholly understood without taking the early experiments, failures for the most part, into account. Many of the men who were prominently connected with the early organization of labor have now passed away, and there remains hardly a trace of what was done, at least in the form of a definite record. For these reasons, if for no other, it seems advisable to preserve permanently the brief chronicles that exist.

In early years the mechanics and skilled laborers of Massachusetts had exercised undoubted influence in civic affairs, and whenever it seemed necessary were able to stand together in behalf of their rights.

But, as far as can now be ascertained, one of the first if not the first organization of the workingmen in Massachusetts into a permanent trade society was that of the shipwrights and caulkers of Boston and Charlestown, in 1822. The next year they were granted by the State an act of incorporation under the name of the Columbian Charitable Society of Shipwrights and Caulkers of Boston and Charlestown.

This organization seems to have been originally formed by journeymen, as in effect a trade union. It was confined to Boston and adjacent towns. No person could be admitted to membership unless he had worked at the shipwright and caulking business at least three years, and a vote of three-fourths of the members present was necessary for his admittance. The initiation fee was \$5, monthly dues 50 cents, payable in advance. If the treasurer had no funds, members were assessed to pay expenses. The benefits were, \$5 a week in case of sickness, not, however, to exceed the sum of \$60 during one term of sickness, except in case of destitution, and then by a special vote of the society. On the death of a member in good standing, the society paid to his widow or nearest relative the sum of \$50.

In the course of a few years, many of the members having removed, died, or gone into business on their own account, the society dwindled away, though the charter was still held. In 1855 it was reorganized simply as a charitable and benevolent society, without any of the distinctive features of a trade union. In 1866 the constitution was revised, but from that time there are no accounts of its doings. The records of this early labor organization in Massachusetts show that from the years 1822 to 1866 there were admitted in all 173 members, of which number 49 are recorded as having retired, and 72 deceased, leaving in 1866 a membership of 52 persons.

Prior to the year 1857, such other traces as remain of the agitation of labor questions show that it was of a general nature. There is still some recollection of a society called the "New England Association of Farmers, Mechanics, and other Workmen," which held meetings in Boston in 1831 and 1832, but there is no record of its proceedings, or of the number of its members.

The subject of shorter working hours was much discussed between 1834 and 1837, and many more or less temporary organizations of workmen instituted strikes, most of which were unsuccessful. An organization called a trade union, which aimed to unite workmen in various industries was established in Boston during the decade 1830-1840, upon broad lines, educational as well as reformatory, and its parades and public meetings attracted attention during its somewhat limited life.

During the great financial panic of 1857, business men lost heavily, trade of all kinds was dull, employment scarce, wages greatly reduced, and many persons entirely out of work. In many instances business was carried on at a loss to manufacturers, or with an exceedingly small margin of profit. Therefore when workmen stood out against a reduction of pay they were looked upon with disfavor by their employers, and in some cases discharged, as their places could be easily and promptly filled by others. It was about this time that the first real efforts commenced to establish trade unions in New England.

Under the leadership and instruction of some of their number who had belonged to trade unions in Europe, the workmen began to combine in the various trades to maintain the wage standard, and protect their interests by united action. In these first struggles the workmen were in nearly every instance defeated. Employers could when necessary fill their shops with new hands drawn from other localities. To this, however, the Ship Carpenters' Union was a notable exception.

This organization was formed in East Boston in 1858, and grew out of differences respecting repair work or construction on old, as against operations on entirely new vessels. In East Boston the men worked nine hours for \$2.50 a day, while in Boston proper they were paid \$3 for eight hours' work, besides being allowed 20 minutes during the forenoon for lunch.

Some of the employers opposed the formation of the union and did what they could to discountenance and prevent it, but after it was fully organized they made little or no resistance. Only citizens of the United States were eligible to membership, and no member of the union would work where non-union men were employed. They stood firmly together and very shortly succeeded in establishing a uniform rate of \$3 a day for a day's work of eight hours.

Notwithstanding this substantial success, indeed, it has been said, largely owing to it, the members lost interest and the union gradually died out. Again in 1863 "The Journeymen Shipjoiners' Union No. 1, of Boston, Mass.," was organized, with the following preamble :

Whereas it has become necessary to unite for the protection of the interests of the Journeymen Shipjoiners of Boston and vicinity, and past experience having proved that the most strenuous efforts of individuals cannot obtain an adequate remuneration for their labor; therefore, we believe that the co-operation of all this class of mechanics, by frequent meetings and interchange of opinions is highly conducive to acquire a just and reasonable compensation for their labor; and we believe that we, as shipjoiners, are benefited by the existence of an Association.

The constitution and by-laws were in most respects similar to those of kindred associations. It was, however, a secret society having passwords, signs, etc. In the beginning of 1865 it was merged into the International Union of Shipwrights, and became the Boston branch of that consolidated and powerful organization. At a convention held in Buffalo, January, 1865, the following articles of agreement were adopted :

1st. We do agree that in establishing the eight-hour system, we will act in harmony with any plan with our brethren of the West, whereby we think collectively, it can be established. In order to carry it into effect, we adopt the following course of action, viz: that we demand that eight hours shall be a day's work on and after the 10th of March, 1866, and we ask the co-operation of all other Shipwrights and Caulkers' Unions through Fincher's Trades Review, and the agitation of the same be left to the different local unions.

2nd. We agree that in case of a strike at the West, we will use all honorable and lawful means to prevent shipwrights at the East from going West to work during said strike, and likewise should there be a strike in the East, then the Shipwrights' Union of the West will use all honorable and lawful means to prevent shipwrights of the West from coming East during the said strike.

3rd. That in the case of a strike at the West, if the West needs pecuniary assistance, we will afford it to the best of our ability, and in case of a strike in the East, if the East needs pecuniary assistance from the West, the West will afford it to the best of their ability.

4th. That we do agree to establish a Traveling Card, whereby the shipwrights of the East can in a brotherly manner be recognized by those of the West, and vice versa, those of the West to the East, and become members if desired, of either the East or West organizations, without paying an initiation fee, amendable to the rules and regulations of the local unions.

This agreement was duly signed by all the delegates. There is every evidence that the Boston branch held consistently to this agree-

ment as long as it remained connected with the International Union. On the 2nd of April, 1866, the shipwrights and caulkers struck for eight hours a day. The ship *Archer* was sent from New York to Boston to be repaired, because the owners would not let the work be done in New York on the eight-hour system, and were determined to defeat the strike. When asked to repair her, the Boston workmen answered they would do so if the owners would allow New York caulkers to come and assist, at eight hours a day. This led to a lockout of the Boston shipwrights and caulkers.

While the New York shipwrights were on strike, the Boston branch of the union sent them upwards of \$1,000, but notwithstanding this and the aid they received from other quarters, at the end of three months the New York men compromised with their employers and resumed work at the rate of \$3.50 per day of nine hours. In Boston the men accepted a scale of prices fixed by the employers who consulted together for that purpose. This seems to have broken up the union; at all events, there were no more meetings of the Boston branch. As work got more and more scarce, wages were reduced to \$3 per day, and the union was finally abandoned. A new organization of shipwrights and caulkers was formed in 1877 as a secret society, on the basis of the eight-hour day and \$3 daily wages. Considerable space has been devoted to this account of the shipwrights, for the reason that up to 1879 they maintained one of the most compact and most successful organizations upon trade union lines ever formed in the State.

It is impossible to name all of the associations organized in Massachusetts as trade unions between 1858 and 1873. During the War of the Rebellion, every branch of industry in the State had at times in some locality what was termed a trade union. Such organizations would be formed for the most trivial causes, fail in a few weeks or months, and afterwards reorganize, once more to dissolve, when the particular point which called the association into existence was either gained or lost. Between 1859 and 1879 the following unions in this State were sufficiently established to be mentioned: Hatters, Harness Makers, Plumbers, Plasterers, Bricklayers, Carpenters, Painters, Cabinet Makers, Free Stone Cutters, Granite Cutters, Woodworkers, Iron Moulders, Bookbinders, Brush Makers, Machinists and Blacksmiths, Clothiers, Tailors, Tanners, Shoemakers, Printers, Locomotive Engineers, Locomotive Firemen, Trainmen, Coopers, Glass Makers, Carriage Makers, Morocco Dressers, and Cigar Makers.

It must be admitted, however, that trade unions germinated but slowly in Massachusetts. Much of the vigor that was in the above-named organizations was derived from parent stems, having roots outside the State. In the first struggles of the various local organizations established in different parts of the country, the leaders began to see the necessity of a better understanding with each other and a more extended and harmonious union of their interests throughout the several trades. In certain

cases where strikes had taken place, the positions of the strikers had been quietly filled by the employers obtaining men from other localities. This subject, therefore, early became a matter of much interest and discussion in all the local unions throughout the country, as it was easy to see that the objects of the organizations were in danger of being frustrated unless arrangements were made by which each would sustain the other in case of a struggle.

The machinists and blacksmiths met in delegate convention March 2, 1859, and formed an international union of that trade. On the 5th of July following, delegates from the local unions of iron moulders met in convention and organized the National Union of Iron Moulders of the United States. Afterward and prior to 1880 the following formed national organizations: Printers, Hatters, Iron Moulders, Glass Makers, Shipwrights, Caulkers, Cabinet Makers, Painters, Plasterers, Machinists and Blacksmiths, Iron and Steel Heaters, Puddlers, Rollers and Catchers, Bricklayers, Morocco Dressers, Coopers, Tailors, Locomotive Engineers, Locomotive Firemen, Carriage Makers, Cigar Makers, Coal Miners, Railroad Conductors, Trainmen, Knights of St. Crispin, and Daughters of St. Crispin. Nearly all of the above organizations were represented by branches in Massachusetts, but with the single exception of the Crispins*, none of them were ever very strong or vigorous here.

The order of the Knights of St. Crispin was established at Milwaukee in 1867 upon a plan originated by Newell Daniels, formerly of Milford, Massachusetts. Local lodges were afterward quite rapidly formed throughout the State, and until 1873 the organization had considerable force but rapidly declined thereafter. Prior to 1860, organization in the shoe trade was hardly known. In that year the industry was disturbed by extensive strikes. The Lasters' Protective Union dates from 1869.

Up to the year 1880 it was always a source of complaint among the leaders of national trade unions that they could make little impression on Massachusetts. In the Iron Moulders' Journal for March, 1878, the editor says, "We have examined the condition of the labor movement in Massachusetts, and have seen that when some measure that is odious to the many is introduced in the legislature, a spasmodic revival is created, the measure defeated, and the labor movement dies, to be revived only when some other odious law is introduced; huge strikes are inaugurated; men and women involved become united; strike is ended, and organizations that should remain in existence die. And we repeat our assertion that so far as trade or bona fide labor unions are concerned, there is not a State north, east, south, or west so devoid of organization as Massachusetts, and the only trade that has even a foot-hold in it is the Crispins*, and oppression on the part of employers infused new life into them."

* The title of the union of boot and shoe workers.

It would be unprofitable to attempt a detailed account of the vicissitudes of the trade unions in this State between 1860 and 1873. Between those two dates it is safe to say that hundreds of local unions in all branches of industry were organized in spasms of excitement, which faded out of existence almost as soon as the ink was dry with which their by-laws were written.

Branches of national unions maintained vitality almost wholly through their connections outside the State and the energy of a few who were determined to keep up at least a form of organization. National and international trade unions seem to have attained their highest measure of prosperity between 1865 and 1870. Their great strongholds were in the States of New York, Pennsylvania, and Ohio, particularly the former. In some localities in Massachusetts they for a time controlled certain trades, and in almost all an advance of wages took place. It is not clear, however, that the general prosperity prevailing at the time did not have more to do with the advance in wages than the efficiency of trade unions here.

In 1865, besides the unions previously enumerated there were local organizations in various other trades. The tin-plate, copper, and sheet iron workers, the carpenters and joiners, and the masons and painters had State organizations. There was also an organization called the Workingmen's Assembly. All of the above met in Boston fortnightly.

The National Union of Machinists and Blacksmiths had at this time branches in Boston, East Boston, Roxbury, Charlestown, Winchendon, Fitchburg, Taunton, Springfield, and Lowell. Great exertions were made by the national unions to propagate their several organizations in Massachusetts, but with indifferent success. The Machinists and Blacksmiths seem to have been the most active. They tried to establish trades' assemblies in Boston, and raised \$400 to pay an agent to devote his whole time to the interests of the union. How long he worked, or what was the result of his efforts there is nothing now to show.

In the early part of 1865, No. 11 of Roxbury, the largest union of machinists and blacksmiths in the State, sent out a circular containing the names of 70 members who were from six to 12 months in arrears for dues, showing an aggregate delinquency of \$141.75, and making an urgent appeal for funds.

The experience of all the trade unions in Massachusetts was very similar, and any account of their fluctuations would be of little interest or to repeat what has been said already. None ever developed much strength in numbers, excepting perhaps the Crispins in the boot and shoe industry, and in some localities at times the cotton factory operatives. Strikes prior to 1880 were rarely successful, perhaps never completely so in this State.

By a fundamental principle of all trade unions no subject of a political nature could under any pretence be introduced for consideration

at any of their meetings. When it is remembered how much of politics enters into nearly every phase of social life in America, and that the leading spirits in the unions were probably more or less interested in political questions, particularly such as related to legislation on labor, it may be supposed that they became restive under such a restriction and felt hampered in their discussions and deliberations thereby. From this undoubtedly originated the organization of "The Trades' Assemblies." The Trades' Assembly was a body composed of delegates from the several unions and elected by them for that purpose, with full powers to make their own laws and regulations. This organization was instituted expressly for the purpose of watching and furthering labor legislation. The first trades' assembly of any account was organized in Cincinnati in 1864, and others were subsequently formed in various places to hold monthly, quarterly, or yearly meetings, but it does not appear that many of the unions ever heartily adopted the idea. The number of delegates was never large, nor do the trades' assemblies seem to have ever exercised much influence as separate and distinct bodies. The individual members composing the organizations were able and energetic, but in most instances appear to have been unable to work effectively together.

In August, 1866, a convention composed of delegates from trade unions and trades' assemblies met in Baltimore, and formed The National Labor Union. Resolutions were adopted demanding the passage of an eight-hour law, the establishment of a national bureau of labor statistics, etc. This body afterward assembled in Chicago and held two sessions each day during the entire week. The reports of the president and secretary were received and accepted.

The secretary in his report mentions that since the previous session of the Union in Baltimore, he had written and sent 1,387 letters, and received 8,956. He had distributed 2,157 printed letters and 5,816 addresses. He had received for printing \$75.38 and expended \$491.62. Various committees were then appointed and a constitution adopted. Nearly every phase of the labor question was discussed at this convention.

The most important resolutions adopted were those recommending the thorough and uniform organization of the various national, international, State, and local unions into one body, and providing for the organization of a national labor party, which was accepted after some opposition.

This was perhaps the most important meeting connected with the labor question which up to that time was ever held in America. The convention was composed of the leading men in the ranks of labor, and included the most able representatives of the labor movement throughout the country. The next year the organization held a convention in New York, and subsequently in Philadelphia and Cincinnati. The meet-

ing in Cincinnati was not so well attended as the others, and was far from harmonious. Party politics and bitter feeling predominated in its deliberations.

In 1872 workingmen generally had lost confidence in the organization, regarding it as a mere political machine controlled by a few men in their personal interest. Trade unions severely criticised its methods, refused to send delegates to its conventions, and thus terminated its existence.

In July, 1873, one more attempt was made to bring the trade unions into a national organization. Delegates from the several States met in convention in Cleveland, Ohio, and organized under the name of the Industrial Congress of the United States. The next year this body met in Rochester, New York, but subsequently disappeared.

In 1871 and 1872 the trade unions of New York City began an agitation in favor of the eight-hour law. This culminated in a great strike, in which between 30 and 40 trades were involved. The membership of the trade unions in the city increased in less than a year more than ten-fold, and it was said, included approximately 100,000 persons. In the building trades the strike was completely successful, and in some 20 others partially so. The intense excitement growing out of the strike, and the victory of the men in the contest, gave a considerable impulse to trade unions in Massachusetts, and they largely increased their membership, while new organizations were formed all over the State. Although some of them were measurably successful in resisting a reduction, or gaining an increase of wages, nearly all ceased to exist before 1880, leaving no record of their operations. At the opening of the year 1879 there were no unions in this State which claimed to control their trade, with the single exception of the Hatters. The large and powerful trade organizations had scarcely obtained a foot-hold here, or indeed in the country. The Amalgamated Engineers, with a permanent fund at that time of \$1,376,350, had 38 branches in America, but none in Massachusetts. The Amalgamated Society of Carpenters, founded in 1860 in London upon the same plan as the Engineers, then controlled 337 branches with a membership of 16,622 and a cash balance of half a million dollars, and had one branch in Boston and one in Fall River, with 12 members each.

The Brotherhood of Locomotive Engineers was first formed in Detroit, Michigan, August 17, 1863, and reorganized the next year at Indianapolis. The first division in Massachusetts was instituted January 28, 1865, under the name of Boston Division No. 61; next, Division No. 64 in Worcester, 1868; Fitchburg, Division No. 191, 1875. The order in this State was represented to be in a healthy condition in 1879. There were 300 members in Boston, 120 in Worcester, and 40 in Fitchburg. The order had social and beneficiary features, including the payment of sick and death benefits.

The Iron Moulders' Union of North America, a large organization extending throughout the country, founded upon a plan similar in many respects to the Engineers, had branches in Roxbury, Wakefield, and Watertown, Mass., but these were hardly more than rudimentary, holding no regular meetings.

The machinists and blacksmiths, who 10 years previously had branch Unions in 10 cities and towns in Massachusetts, were hardly represented in 1879.

Organization in the textile trades of a more or less tentative kind began as early as 1840. The secretary of the Cotton Spinners, Fall River, reports, early in 1879:

Our union now numbers 560 members and belongs to the International Labor Union, founded in 1858. We are the only trade union of cotton operatives in New England, all others having been crushed out. Our benefit provisions are, \$50 in case of death; \$4 per week, in case of accident, for six months. If the accident disables from ever again following the ordinary occupation, \$100 grant. In case of sickness our members are cared for, if needed.

At the same time the president of the Cigar Makers' Union, Cambridgeport, reports:

Since the suspension of the original Union No. 18, there have been instituted three different organizations with various objects and designs, all of which after a short existence succumbed to the hard times and other causes. The present association was formed in 1878 simply as a social organization for mutual improvement, when after continuing as such a short time, it was admitted into the International Union of Cigar Makers, and became part of that body. It numbers about 100 members in good standing, that being about one-third of the craft in Boston and vicinity, who generally seem to display an apathy regarding its success entirely unexplainable by me.

It is beneficial in character, paying \$5 per week in case of sickness; \$1.50 to a member of six months' standing, and \$3 to one of one year's who may desire to leave its jurisdiction; also a weekly amount to one out of work from any cause for which he is not responsible. The fee for admission is \$1; the dues 10 cents per week, which may be increased by assessments at any time by a majority vote of the members. The funds are also increased from time to time by giving balls, picnics, and entertainments.

The organization is opposed to strikes, which it will use every proper means in its power to avert, but when a strike does occur, it will support it to the best of its ability.

Our craft has an evil to contend with in New York City, namely, the tenement house system of labor, as there instituted and carried on.

Besides the branch union described above, there were two other Cigar Makers' Unions in the State in 1879, one in Westfield and one in Springfield, although their membership was small.

The Granite Cutters' International Union, as organized in 1879, was instituted at Clark's Island, Maine, March 3, 1877. The branches in this State in 1879 were the following: Boston, with 66 members; Quincy, 348; Salem, 17; Graniteville, Lowell, Worcester, and Northbridge, membership not reported. The membership of the different

branches continually varied, as the men moved from place to place to follow their occupation. The headquarters of the Association were at that time in Boston, where a monthly paper was published,* devoted to the interests of the trade.

The secretary of the Tack Makers' Association in Taunton reported :

There are about 60 tack makers here, and only about 250 in the United States. We probably control our trade as well or better than most labor organizations.

With regard to unions among printers in 1879 the following statement was then made by a member :

The Typographical Union No. 13 of this city was founded in the month of December, 1848. It numbers at present 374 members. Its objects in the main are to keep up the scale of prices by refusing to employ substitutes ("subs") not belonging to the organization. It secures to each member financial assistance in case of sickness, or to defray traveling expenses when looking for work, and decent burial. It is supported by quarterly payments of \$1 per head. Extra assessments may be levied, however, by consent of two-thirds of the members present. Qualifications for membership are, experience of four years in the business, and majority of age. Whenever the foreman of an office is a member of the organization, non-members rarely find employment; where this is not the case, non-members may work as well, though the union men used to band together to counteract non-members in getting work. Of course, the firms and foremen combined are too powerful to be overcome, except in cases of sudden strikes just before publication of the paper. In most instances the strikes have been local and confined to one establishment. Strikes on a grand scale, so as to take in a State or several States, have as yet not been attempted, perhaps for the reason that there are far more women and boys in the business than can find chances for steady employment.

Besides the Boston union, there was a union in Cambridge with about 200 members, and one in Worcester, with a membership of about 60; these comprised all then existing in the State. They did not anywhere claim to control the rate of wages, but believed the union had a certain effect in keeping wages up to a higher standard than would otherwise obtain. In Boston, all the printers in two or three leading newspaper offices, for example, belonged to the union, but in nearly all other places in the city and State, non-union printers worked side by side with union men without controversy.

A national convention of journeymen printers assembled in New York in December, 1850, finally resulting in the International Typographical Union. A session of this body was held in Boston in 1859.

The Boston Hat Finishers' Association was the only trade union in the State in 1879 that claimed to control prices for work and to effect the strict enforcement of its rules. It was a branch of the National Trade Association of Silk and Fur Hat Finishers of the United States, and connected with those of England, France, and Germany. The Hatters were said to have the oldest trade association then in exist-

* This paper, the Granite Cutters' Journal, now has its office of publication in Baltimore, Md.

ence. It was first instituted in England in the year 1510, and afterwards reorganized in 1790. The Boston branch was organized August 30, 1850; in 1879 it had 79 members. There were also branches in Worcester and in New Bedford, comprising a total membership of 81. There were also eight apprentices registered by the association who, when of age, would become eligible to membership.

The following were some of the provisions of the by-laws relating to apprentices:

Article 22, Sec. 1. Any firm or employer having ten or more journeymen employed at any one time, shall be entitled to two apprentices only. And any employer or firm having less than ten journeymen employed at any one time, shall be entitled to only one apprentice. On the entrance of a boy to any shop as an apprentice, it shall be the duty of the journeymen of such shop to inform themselves if said boy is of suitable age, and if he is not, to use such means as they may deem proper to have him discharged; but if the employer refuses to comply with their request, they shall "turn out." The same shall be required in all cases where more than the specified number of apprentices is sought to be introduced into any shop. It shall further be the duty of the journeymen of each shop within this jurisdiction, to report all boys hereafter entering their respective shops as apprentices to the Secretary of the Association, in order that a correct record may be kept.

Sec. 2. For the mutual benefit of all interested in our trade, both employers and journeymen, as also of boys who may seek it as a means of livelihood and future usefulness, it is hereby required that all boys hereafter engaging themselves to learn the hat finishing business shall serve four years or more, with the same employer if possible, at the expiration of which time they shall not be considered journeymen unless they are twenty-one years of age, and shall be required to prove to the satisfaction of this Association that they have faithfully served the regular time to constitute themselves journeymen, all of which time must have been prior to their becoming twenty-one years of age.

Sec. 3. Apprentices shall not be allowed to leave their respective employers and engage themselves to others in the trade, without first obtaining a full, free, and unconditional discharge from their former employers, unless sanctioned by this Association after a careful investigation.

The constitution and by-laws also contained very stringent and peculiar rules for the government of journeymen. Members of the Association claimed that the above rules and some other restrictions of the trade, had, when known to those outside the business, been always misunderstood, and for that reason they had hitherto refused all applications for information regarding the methods and condition of their union. They claimed that properly understood, their regulations were for the best interests of both employers and journeymen, and of the trade generally. In Boston they worked entirely by the piece, and a list of prices was established, to which all conformed. When an employer desired to reduce the price paid for one or more kinds of work, he notified the Association, giving his reasons therefor. A meeting was at once called to consider the question, when, if deemed best, the reduction was made and a new list of prices established, which in all cases became uniform throughout the jurisdiction. There was the utmost harmony and good

feeling between employers and workmen in the trade in 1879, and the rules of the Association were generally adhered to by both. There were three different reductions in prices within the two years preceding 1879.

The tailors and clothiers of Boston were endeavoring to organize in 1879, but with little success. The longshoremen had a rudimentary organization, and this was perhaps the case with some other trades.

This account includes practically all the trade unions in the State at that time. In some localities one or two men belonging to one of the national organizations formed centres which might attract others in case of difficulty of any kind, but these could hardly by any stretch of language be properly called unions. The Central Trades and Labor Union held meetings in Boston every fortnight. This organization was then composed of the members of trade unions, and was devoted to the advancement of labor interests. Crispinism, which for a long time had been strong in the boot and shoe trade, was practically dead. The painters, plumbers, bricklayers, etc. were at that time entirely without organization. Trade unionism, therefore, at the close of the year 1879, was without force in Massachusetts.

A general assembly of the Knights of Labor was formed in 1878 at Reading, Pennsylvania, there having been previously local organizations which were thus united. Up to the date of the third regular session in 1879 some 700 local assemblies had been organized in the country and the membership was approximately 5,000. This order grew rapidly thereafter in Massachusetts as elsewhere.

In conclusion, it is plain that up to 1880 trade unions had never been continuously successful in New England. One reason for this may be that the restraints of these associations did not harmonize with the ideas of individual independence among New England mechanics. And it is also true that early New England workmen seldom regarded their condition as journeymen as likely to be permanent. They nearly all looked forward with some degree of hope to a time when they would become employers. In England, where trade unions had before this time grown to power and influence, the journeyman mechanic was with rare exceptions a journeyman for life. Men of great force of character and much native ability remained permanently in the ranks of labor, and became the trusted leaders and organizers of the masses. In Massachusetts, prior to 1880, the conditions were entirely different.

[Mr. Carruthers' article is necessarily much condensed. The early history of the labor movement throughout the country with a fuller account of some of the early agitation of labor questions, referred to by him in connection with trade union organizations is given in "The Labor Movement," ed. by Geo. E. McNeill, with chapters by persons connected with the more important organizations, published in 1887 by A. M. Bridgman & Co., Boston, and the M. W. Hazen Co., New York.]

CONTRACTS WITH WORKINGMEN UPON PUBLIC WORK.

The general question of the substitution of direct employment for the ordinary contract system in the execution of public work is still under discussion, and in some of its phases has been treated in previous numbers of the Bulletin.*

Occupying a position between direct employment and contract with the individual employer, is a plan of contract with the workingmen organized into co-operative societies. This is, indeed, contract work, but it is a contract under which profits, if any, go to the workingmen. This plan has not made much headway in this country; indeed, there are few, if any, co-operative societies of workingmen who are able to make such contracts. On the other hand, there are places where this modified form of contracting for public work has been tried.

In New Zealand, for example, prior to 1894, the labor employed on public work had been organized upon the co-operative system, under which the men worked at piece-work rates. This form of employment was utilized largely in the construction of roads and railways, as many as 2,000 having been employed at one time in this manner. Similarly, in Victoria a plan was adopted for the relief of the unemployed, under which in railway construction men were employed co-operatively in what was called the "buddy gang" system. In Russia, also, similar co-operative groups of workmen have been employed on public work.

The formation of co-operative workingmen's associations and the execution of public contracts by such associations have been fostered in France, and between 1879 and 1895, there were 299 public contracts executed by such associations, covering work having a total value of nearly \$2,000,000. A contract during successive years has existed between the French government and the co-operative association of printers employed upon the official governmental organ (*Journal Officiel*). In carrying out this contract, the materials are furnished and the premises provided by the government.

In England such contracts have not been numerous, but between 1885 and 1895 the War Office entered into agreements with certain co-operative societies who supplied for the use of the army boots and shoes having an aggregate value of more than \$2,000,000.

In Italy a distinct effort was made to foster co-operative contracting of the kind mentioned by the passage of a law in July, 1889, wherein it was provided that contracts for the execution of public works might be

* Wages under Contracts for Public Work, Bulletin No. 4; October, 1897. The Maintenance of the Standard of Living, Bulletin No. 9; January, 1899.

undertaken by co-operative associations of workingmen, provided that the value of the work in each case should not exceed \$20,000, and that the contract should be one in which the value of the labor should predominate as compared with the value of materials, etc. The contracting authorities were permitted to make separate contracts for labor and materials. Actual experience under the operation of the law has shown that certain modifications were advisable, and by a decree made operative June 9, 1898, it is now compulsory that separate contracts for labor and materials shall be made, except in cases under which such a course would interfere with the practical execution of the work; and it is also now provided that whenever practicable, separate contracts shall be made for work belonging to distinct trades. These provisions, of course, tend toward direct employment.

In 1889, the first year after the passage of the law, 26 contracts were given out, covering work amounting to \$82,510; the following year 157 contracts were awarded, covering \$732,025; in 1891, 120 contracts, amounting to \$328,710; in 1892, 106 contracts, aggregating \$357,830; in 1893, 177 contracts, covering \$515,805; in 1894, 215 contracts, amounting to \$404,475; in 1895, 159 contracts, value \$426,835; in 1896, 200 contracts, aggregating \$399,645; in 1897, 125 contracts, covering \$364,755. In the nine years, closing with 1897, therefore, these co-operative associations have in the aggregate executed 1,285 contracts, amounting to \$3,612,590.

A report on co-operation, issued by the Italian government in 1894, deals in one of its volumes with the co-operative labor societies, especially those employed in building. Speaking of the growth of these societies under the law of 1889, to which we have referred, it is stated that many contractors, with a view to profiting by the facilities of the law, which dispensed, in favor of the workingman, with the necessity of furnishing the usual security for the execution of the work, secretly promoted co-operative societies and assumed their management, many of such societies being co-operative in name only, the managers taking the profits and the men receiving only wages.

It seems that prior to the law of 1889, the growth of co-operative building societies in Italy was especially promoted by an increase in building speculation and a great influx in the building trades of workmen from the land, who, being unwilling to return to their former employment after the cessation of the unusual activity in building which had drawn them into the building trades, formed themselves into co-operative associations for the purpose of taking contracts on their own account. Many of the co-operative associations which were entered upon the registers, as required under the law, as qualified to take public contracts, afterward had their registration cancelled, so that down to the end of 1897, while 515 societies were registered, there were 214 which had been cancelled for various reasons. In some cases the societies had

gone into liquidation; in others, they had failed to comply with the rules formed for their administration, or had otherwise failed to carry out the purposes for which they were organized.

Of the 1,285 contracts which have, however, been executed by co-operative associations of workingmen in Italy, as mentioned above, 639 were in connection with river and other embankment work, aggregating in amount \$2,715,345, or about 75 per cent of the total amount covered by all the contracts; 66 others were for bridge and road work, aggregating in amount \$457,530; 40 were for work in connection with the reclamation of the Pontine marshes, aggregating in amount \$105,680; 451 for masonry and bricklaying, to the amount of \$154,580; 24 for iron work, amounting to \$66,060; and 12 for military equipment and transport, amounting to \$51,675. It will be seen from an inspection of these figures that by far the largest amount of the work has been for unskilled labor, and for work in which labor very much exceeded materials of construction, or practically formed the whole of the contract.

It will be understood that within the field of operation of these societies, namely, for contracts under \$20,000 in amount, they are exempted from competition with ordinary contractors. It will be noticed that during the years 1896 and 1897 the total value of the contracts executed co-operatively shows a decline as compared with previous years, and this is explained as partly due to the fact that some of the more substantial co-operative societies have during the period in question withdrawn from the special field fixed by the statute, and have competed for contracts above the \$20,000 limit in the market.

It may be mentioned, as bearing upon the manner in which the societies have executed their contracts, that during the period named, 1889-1897, six contracts, amounting in the whole to \$28,400, were rescinded, and that, as provided by law, fines amounting in the aggregate to \$12,000 were imposed upon 40 societies for infractions of the conditions of the contracts. On the whole, however, the societies have carried out their contracts satisfactorily.

The general movement thus outlined is interesting from the standpoint of co-operation, as well as illustrating the method of eliminating the middleman in public contracts. [Consult for full account of Co-operative Contracts in various countries prior to 1896 the Report by Mr. David F. Schloss to the English Labor Department (*Parliamentary Document C. 8233 of the Session of 1896*). Also for Co-operation in Italy, *Statistica delle Società Co-operative*, Rome: Libreria Bocca; and current numbers of *Credito e Cooperazione*.]

FOREIGN LABOR DISTURBANCES IN 1897.

The latest complete data available bring the record of strikes in various European industrial centres up to the end of 1897.

In 1897, there were 578 strikes in the Empire of Germany, in which 63,119 persons actively participated. They lasted altogether 1,921 weeks and cost, in actual expenditure out of labor organization funds, exclusive of the losses in wages, about \$362,000. In 1896, there were 483 strikes, actively participated in by 128,808 persons, lasting 1,923 weeks and consuming, exclusive of wages, about \$714,000. Comparing 1897 with 1896 we find an increase of 95 strikes, or 19.70 per cent; a decrease of 65,689 persons, or 51 per cent; a decrease of two weeks, or 0.10 per cent; and a decrease in the cost of \$352,000, or 49.30 per cent. This difference is due to the strikes of the dock laborers and textile workers in 1896, in which 55,510 persons took part. The occupations principally affected in 1897 were woodworkers, who were concerned in 64 strikes, 12,036 persons participating, with expenses, exclusive of wages, amounting to \$42,364; shoemakers, 52 strikes, 6,193 participants; formers, 50 strikes, 2,123 persons; metal workers, 29 strikes and 2,023 persons; tobacco workers, 24 strikes and 625 persons.

In Austria in 1897 there were 221 strikes, participated in by 34,835 employés, as against 294 strikes involving 36,114 employés in 1896. The aggregate number of days lost by strikers in 1897 was 354,922, as against 595,768 in 1896. Comparing the aggregates for 1897 with those for 1896, there will be noted a decrease of 73 strikes, or nearly 25 per cent, and a decrease in the number of employés involved of 1,279, or between three and four per cent.

The occupations affected by the strikes, and the number of persons employed in each who were involved in the disputes in Austria in each of the years are shown in the following table:

CLASSIFICATION OF TRADES.	EMPLOYES INVOLVED IN STRIKES IN —		PERCENTAGES OF ALL STRIKERS IN —	
	1896	1897	1896	1897
Building trades,	5,471	4,995	15.20	14.30
Metal and engineering trades,	5,031	6,257	13.90	18.00
Textile trades,	9,791	11,275	27.10	32.40
Clothing trades,	2,563	300	7.10	0.80
In transportation,	65	2,629	0.20	7.50
Woodworking, rubber, and furnishing trades, .	5,972	1,382	16.50	4.00
Glass, pottery, etc., trades,	3,217	3,053	8.90	8.80
Miscellaneous,	4,004	4,944	11.10	14.20
TOTALS,	36,114	34,835	100.00	100.00

With respect to the settlement of the strikes in 1897, there were 38, involving 5,245 workmen, which were won, as against 64, involving

3,046 workmen, in 1896. On the other hand, 102 strikes, involving 12,611 workmen, were lost in 1897, as against 123, including 10,754 workmen, which were lost in 1896. In 1897, there were 81 strikes, involving 16,979 workmen, which were settled by compromise, as against 107, involving 22,314 workmen, in 1896. In other words, on the basis of employ  s involved, about 15 per cent won their contest in 1897, as against about eight per cent in 1896; about 36 per cent lost, as against about 30 per cent in 1896; and about 49 per cent accepted a compromise, as against about 62 per cent in 1896.

Lockouts are not included in the foregoing statement. Of such disputes there were 10 in 1897, and a like number in 1896. These involved 5,445 employ  s in 1897, as against only 1,544 in 1896. Of the lockouts in 1897, nine, and of those in 1896, four, were due, however, to voluntary absences on the part of the work-people.

In England, the strikes in 1897 involved 230,267 employ  s, as against 198,697 in 1896, the aggregate number of days lost by the strikers in 1897 being 10,345,523, as against 37,485,525. Strikes in 1897 in England involved about two per cent of the entire working population of the country, exclusive of domestic servants. The large increase in the number of days lost, without a correspondingly large increase in the number of persons involved, is due to the severe disturbance which prevailed during the year in the engineering trades (metal working, shipbuilding, etc.), involving about nine per cent of the workmen in these trades.

The trades which outside of these were most seriously disturbed were those in connection with the manufacture of textiles, in which strikes involved about three per cent of the total working force.

Strikes involving nearly 22 per cent of the whole number engaged in the struggle were settled wholly in favor of the employ  s; while strikes involving 44.50 per cent of the employ  s engaged were finally settled wholly in favor of the employers. Disputes affecting 187,048 employ  s, or more than 81 per cent of the entire number engaged in all the disagreements, were settled by direct negotiation between the parties interested; while those in which 19,300 employ  s were engaged were settled by boards of conciliation and arbitration, by mediation of third parties, or by reference to arbitration in some form.

In Denmark, during 1897 there were 106 labor disputes, including strikes and lockouts. Of these, information respecting 60 is at hand. These 60 included 6,813 work-people, 3,251 being involved only indirectly. Approximately 236,000 working days were lost, of which about 133,400, or more than 50 per cent, were lost in six disputes in the metal and engineering trades; 33,840 by two disputes in the tailoring trades; and 8,546 by three strikes of weavers. The number of disputes settled by arbitration was seven out of the 60. The 46 other disputes for which information in detail is not furnished were of slight importance.

QUARTERLY REVIEW OF EMPLOYMENT AND EARNINGS.

QUARTER ENDING APRIL, 1899.

The regular quarterly summary of conditions affecting labor, employment, earnings, and cost of living, in the industrial centres of the Commonwealth, based upon special reports and comparisons made by agents of the Bureau, for the quarter ending April, 1899, follows:

BOSTON. Conditions in the building industry during the first three months of the year were not exactly satisfactory, although these months do not usually show full employment or earnings, owing to the season. They may be considered as indicating the possibilities of the coming season, rather than developing active operations. At the close of the quarter the situation seemed more promising than previously. Up to March 31, however, there was apparently not so much important work coming forward as for the same season in 1898, and it is generally considered that fewer plans were in circulation for estimates than was the case last year, and fewer awards made than then. Work offered for bids is keenly sought, and frequently by other than local contractors, including some from the West. While the effect of this competition has not been seriously felt thus far, its presence is recognized by the larger local firms. There has been considerable repair work and alterations carried out during the winter. Wages up to the close of the quarter remain unchanged as compared with December. Stock has advanced, and this will correspondingly affect estimates. Collections show a marked improvement over last year. Employés are now working full time, and the number employed is steadily increasing.

In the brewing industry, although in one or two instances demand is reported up to the level or even above the level of that of last year, by far the greater number of establishments reports that the output has fallen off, and this statement is sustained by the figures, furnished by the courtesy of the collector of internal revenue and by Mr. H. V. Huse, Secretary of the Brewers' Association. From these it appears that the number of barrels of malt and fermented liquors manufactured during the last three months of 1898 aggregated 380,106 as against 326,070 for the first quarter of the present year, a decline of about 14 per cent. For the first quarter of 1898 the output aggregated 361,197 barrels.

The following table shows the diminished output by months:

MONTHS.	PRODUCTION IN BARRELS IN SPECIFIED MONTHS IN—		Decrease in Number of Barrels in 1899
	1898	1899	
January,	111,810	98,368	13,442
February,	107,508	102,383	5,125
March,	141,879	125,319	16,560
TOTALS,	361,197	326,070	35,127

The reduced output is not peculiar to Massachusetts but prevails throughout the country, and is attributed partly to the fact that the revenue tax has been placed on the product. The cost of stock has advanced slightly since our last report. In selling prices there is nominally no change, although the tendency is downward. Collections are fair. The establishments, except a few which are running full, are running from 48 to 75 per cent of their full capacity.

In temperance drinks and bottled waters, demand has naturally increased since December, but is considered at least 10 per cent below that of corresponding months in 1898, due to the backwardness of the season. Establishments are running to 75 per cent of full capacity, and in some cases higher, at the close of the quarter. Wages and selling prices are unchanged. Stock has advanced slightly. Collections are fair.

In Clothing, business shows little change since our last report. Employment and earnings remain practically the same as at the beginning of the year. Rates for piece work have not changed, nor the prices of the finished product. The cost of stock has slightly risen.

In Machines and Machinery, improvement is shown as compared with the first quarter of 1898, but conditions have not changed greatly, when the various lines are taken into account, since our last quarterly report. There is more demand for machinery to be exported than for some years past. Wages are unchanged, and the same statement may be generally made as to the prices obtained for the product, although the price of stock has advanced.

In Metals and Metallic Goods, the advance in the cost of nearly every kind of raw material has affected the industry. The advance in copper especially has restricted the output of copper goods, or lessened the immediate demand. It has not been possible to advance prices of product to meet the increase in cost of stock.

In Printing, Publishing, and Bookbinding, the quarter covered by this report has been a very busy period. A number of establishments report these months to have been the "best ever experienced" by them, and others term them "the best for three or four years," or "better than the average." In some lines seasonal considerations restrict demand in the spring as compared with the closing months of the year. Generally, however, business shows decided improvement, measuring from 10 to 20 per cent, as compared with the last quarter of 1898 or

as compared with corresponding months of last year. Although, nominally, prices have not advanced, nevertheless, somewhat better rates are secured by some establishments on composition and press work. It is felt that prices in many cases are too low and unremunerative. Collections show improvement. Full time is reported, and in some cases overtime. A few establishments are not yet run at full capacity, reporting from 50 to 75 per cent of same.

Firms in all industries which carried 6,312 persons upon the payroll for the week ending December 24, 1898, report 5,980 for the final week of the present quarter, a decline of 5.26 per cent, the weekly wage disbursement for these persons dropping from \$74,879 to \$70,934, a decline of 5.27 per cent.

BROCKTON. The boot and shoe industry shows marked improvement both as compared with the previous quarter, and also as compared with corresponding months in 1898. The increase in cost of stock since the first three months of the year is at least three per cent; but as the advance was largely since orders for the product of the boot and shoe factories were closed, no change in price could be made by the manufacturers to offset this. Higher prices for the output are expected in the future. Wages are not changed since our last report. Employés report that the strike at Marlborough has led to a movement of workmen from thence to Brockton, affecting to some extent the state of employment in the last-named city; but it is unquestioned that conditions are much better than those existing last year. In the establishments reporting, a gain of 2.05 per cent appears in persons employed, the final week of this and the preceding quarter being compared, and a gain of 13.94 per cent in the weekly payroll.

CAMBRIDGE. In Metals and Metallic Goods, improvement is noted in some lines, but in others, especially in the manufacture of boilers, demand is restricted as compared with the quarter ending January 1, with corresponding diminution of employment and earnings. This is partly seasonal. In Cooking, Lighting, and Heating Apparatus, conditions are practically unchanged since the beginning of the year. In all the above, business is more active, however, than for the corresponding months in 1898. Stock has increased in cost from 25 to 70 per cent, and selling prices of product from 25 to 40 per cent. Wages, as yet, are unchanged. Collections are fairly good, and the establishments running on full time, but not at full capacity. On the whole, for the reasons indicated, the number on the payroll for firms reporting for the final week of this and the preceding quarter shows a slight decline and the weekly payroll also declined.

CHICOPEE. In the cotton industry, demand has increased since the beginning of the year, although not to the same extent in some mills as in others, owing to various circumstances. In general it has improved fully 25 per cent as compared with conditions prevailing during the first

quarter of 1898. No change in wages occurred prior to April 1, although in some establishments increases have been granted to take effect on that date. Neither cost of stock nor selling prices have varied much since last December. Collections are good and mills are running full time and at full capacity.

With respect to woollen knit goods demand has increased since December in some cases at least 20 per cent; and better orders than for four years are reported by some mills. Wages remain about the same as in December last, but in some cases employes have been changed to the piece-work basis since then. The cost of stock is slightly higher than at the beginning of the year, but not sufficiently to affect the selling price of the finished product. Collections are good and the mills are running on full time but not always at full capacity, the limit of 40 per cent being reported in one instance.

Establishments reporting for the final week of this and the preceding quarter show 2,881 and 2,892 persons employed at each date respectively, a slight gain. The weekly payroll for these persons rose from \$17,225 to \$17,676, a gain of 2.62 per cent.

FALL RIVER. Great improvement is noted in the cotton industry since the beginning of the year. The demand for goods has steadily increased, more persons are employed, and although no change in wages affected earnings during the first three months of the year, an advance of approximately 12.50 per cent was granted to take effect April 3, restoring rates to the level which obtained prior to the reduction in January, 1898. The increase adds approximately \$22,000 to the amount disbursed weekly. The cost of raw cotton has advanced but the price of the finished product has also risen. The outlook is promising, and the conditions present a marked contrast to those which existed during the entire year 1898. Comparing identical establishments for the final week of this and the preceding quarter we note a gain in persons employed from 3,926 to 4,080 or 3.92 per cent, while the weekly payroll rose from \$24,006 to \$25,668, or 6.92 per cent.

HAVERHILL. The boot and shoe industry has shown great activity during the quarter. The shipments during certain weeks have exceeded those ever before recorded. The business, however, undoubtedly shows close margins of profit, on account of the rise in the cost of stock, which it is not possible to offset by a corresponding advance in prices of the finished product. This may perhaps be remedied in future sales.

Reports from employers and employes indicate at least 20 per cent more persons employed in the industry than for the first quarter of 1898, and a considerable increase as compared with our last quarterly report. Apparently more persons are employed in the industry than at any time since 1895. Earnings in general are somewhat enlarged owing to enlarged employment. While general rates have not increased, certain

workmen have received an advance of about 10 per cent. Firms employing 2,839 persons for the week ending December 24, 1898 report 3,229 for the final week of the first quarter of 1899, a gain of 13.74 per cent. The weekly payroll for these persons rose from \$28,150 to \$32,749, a gain of 16.34 per cent.

HOLYOKE. In the paper industry, an enlarged demand is shown as compared with the final quarter of 1898, the increase being especially large during March. Besides the gain due to normal business conditions, the proposed combination of certain establishments operated to increase orders prior to the contemplated changes. The increase in demand in March over that of December was from 10 to 20 per cent. March is generally considered to have been the best month for orders in three years. Demand for first three months of this year was also greater than for same period of 1898 by from five to 20 per cent, varying with different mills. Few mills report no improvement, and only one a smaller demand. Wages remain the same as in December, since no reduction has been made during the last two or three years as in some other industries.

The cost of high grade stock has increased in price, as has also pulp, each about five per cent. Miscellaneous supplies of all kinds have also advanced in price with no change in the cheaper grades of rags. The selling price of book paper is about five per cent higher, and felt papers have advanced 15 per cent. In other kinds there has been no material change, the tendency in the price of writing papers being slightly downward, although the prices for the better grades are a trifle stiffer. Collections are exceptionally good, and fewer notes were received in March in payment of bills than for several years past. Mills that of late years have usually taken from 30 to 50 notes per month received for March only from one to five. Nearly all the paper mills are running full time and at full capacity. Some of the envelope mills, however, are running only from 40 to 50 per cent of full capacity.

In the woollen industry, no increase in demand since the beginning of the year is reported, and while most mills have noted no decrease, there are exceptions where demand has fallen off at least 10 per cent, and during the past three months possibly 20 per cent from that of the corresponding period of last year. Generally, however, demand has been about the same for the first quarter of this year as for the same period in 1898. There have been no changes in wages since December and no material change in the cost of stock, although prices are easier and possibly slightly lower. Selling prices have fallen off generally about 10 per cent. Collections are good, and, with the exception of mills reporting decreased demand, establishments are running full time and at full capacity.

In cotton cloth mills, demand is about the same as last December; but has increased fully 20 per cent over the first quarter of 1898.

Wages have not been changed since the January report; there is very little change in the cost of stock since then; and no marked changes in selling prices. Collections are good and mills are running full time and at full capacity.

In cotton threads, yarns and warps, demand is better by about five per cent than during the last month of 1898. There has been a gradual and healthy increase in business in these lines since the beginning of the year. Some mills which have been running uniformly for three or four years have not changed, owing to the peculiar conditions under which they operate; but the improved business is clearly noted by the others. Selling prices have not changed materially. The mills are running full time and most of them at full capacity.

In alpaca goods, demand has increased 10 per cent since the beginning of the year and is from 15 to 20 per cent better than for the corresponding period in 1898. Wages have not changed since our last report; and while the cost of stock is slightly higher, selling prices remain practically unchanged. The mills are running on about nine-tenths of full time and at about 85 per cent of full capacity.

Establishments in various industries, reporting for the final week of this and the preceding quarter show a gain in persons employed from 6,800 to 7,012, or 3.12 per cent; and in the weekly payroll from \$49,048 to \$52,557, or 7.15 per cent.

LAWRENCE. Business in all industries shows marked improvement since January 1, and as compared with last year. Increased employment is reported, and more general employment on full time. Establishments in various industries, reporting for the week ending December 24, 1898, and for the last week of the first quarter in 1899, show a gain in persons employed from 15,683 to 16,389, or 4.50 per cent; and a gain in the weekly payroll from \$111,253 to \$121,040, or 8.80 per cent.

LOWELL. In Machines and Machinery, business is reported as 50 per cent better than during the corresponding quarter of 1898 and at least 25 per cent better than for the quarter ending January 1. An increase of about 100 men employed is reported from one establishment visited, and, apparently, further improvement is expected.

In the woollen industry, there is little change as compared with last year, but a somewhat better demand is expected. The market is more steady and the disturbances due to overstocking in anticipation of the tariff bill have been largely overcome.

In the cotton industry, the conditions reflect the improvement elsewhere noted. Mills are operating on full time and nearly at full capacity. Wage advances running from five to 12 per cent took effect April 3.

Identical establishments in the different industries, the final week in this and the preceding quarter being compared, show a gain in per-

sons employed from 16,043 to 16,650, or 3.78 per cent; and the weekly payrolls are, respectively, \$105,867 and \$116,920, a gain of 10.44 per cent.

LYNN. In the leather industry (goat and calf morocco), improvement is noted since the beginning of the year, and in some establishments the volume of business is reported as fully 40 per cent greater than for the first quarter of 1898. March was a particularly active month. This month usually marks the end of the business season in this line of manufacturing; but this year demand continued longer than usual. Rates of wages have not changed since last report; but stock costs from five to 10 per cent more, and about the same advance is obtained in selling prices, through selections. Collections, as a rule, are good, although some houses report them slow. All factories are running full time and at full capacity.

In Boots and Shoes, for ladies', misses', children's, and youths' goods the demand for the first three months of 1899 has been very much greater than for same months of 1898, the increase ranging from nine to 15 per cent. Naturally, the demand during March would be better than during December, and this has been found to be the fact in all establishments visited. A few concerns report no marked increase in demand over last year. Wages have not altered since December, but stock has advanced 10 per cent since then, and prices are held firmer. While selling prices are nominally the same, the advance in stock has in fact been met in the methods of manufacture, and goods are manufactured to a price previously fixed. Collections are good and factories are generally running full time and at full capacity. As indicated by the number of cases shipped, Lynn has manufactured more shoes this year than during the corresponding months in any recent year. A few factories are not running full time or at full capacity, but are within 10 per cent of both; there are also a few others, which are reorganizing their business, that are running from five to 30 per cent and within which production is restricted. On the whole, however, establishments are operating on full time and at full capacity, while some have increased their facilities over last year.

A gain in persons employed by identical establishments in the different industries for the final week of the present quarter as compared with the final week of the preceding quarter is shown from 1,909 to 2,435, or 27.55 per cent; and an increase in the weekly payroll from \$17,808 to \$23,278, or 30.72 per cent.

NEW BEDFORD. Here, as in Fall River the great improvement in the cotton industry is the significant fact. The demand for goods is much better than for several years. The mills are running full time, with increased numbers employed, and an advance of wages has been made (taking effect April 3), equivalent to the reduction in 1898.

The other industries in the city report improved conditions, with enlarged employment and earnings. Establishments having 5,231 persons on the rolls for the week ending December 24, 1898, report 5,467 for the final week of the present quarter, a gain of 4.51 per cent; the weekly payroll rising from \$34,525 to \$35,285, or 2.20 per cent.

Peabody. In the leather industry, demand is good for sheep morocco and has shown marked increase, possibly 10 per cent, since our last quarterly report, and is much greater than for corresponding months in 1898. Some concerns report that they have more work offered than they can do, and that they cannot fill orders promptly. No factories report a decline in demand while a very few report demand as being about the same as the first of the year. There has been no change in rates paid, but increased earnings, amounting to 10 per cent, have resulted from the greater volume of work done. While some varieties of stock show a small advance in cost there are grades that have increased from 15 to 20 per cent in price, while 25 per cent is noted as the advance in one grade. Selling prices on common grades of skins have nominally increased five per cent, but the methods of selection make this figure uncertain. Collections are good and factories are running full time and nearly all at their full capacity. One or two shops engaged in finishing by contract are running at about 75 per cent of their capacity.

In fancy sheep, demand is about the same as for first quarter of 1898. The present quarter falls partly between seasons when demand would not naturally be as good as at date of last report. There has been no change of importance in price of raw material since January 1 but rather a tendency toward lower prices. Selling prices have advanced about five per cent on the average. Collections are poor. Factories are running full time and at about 67 per cent of full capacity.

In goat, demand is better than in December, and much improvement is noted over 1898. An improved feeling is noticed throughout the trade. Generally speaking, from November to March, inclusive, business in this line is at its lowest point. Wages have not changed since our last report. The cost of stock shows a slight increase, and selling prices are from five to 10 per cent higher. Collections have been from slow to fair during the quarter and have slightly improved lately. Factories are running full time and from 50 to 80 per cent of full capacity.

In kangaroo, calf, and hair skins (goat), the last of March showed an improvement of 40 per cent over the demand for the last month of the previous quarter and 12.50 per cent over the corresponding season of last year. Wages have not changed. There has been a slight increase in cost of stock and selling prices have advanced 10 per cent. Collections are good and better during the last 60 days of the present quarter than for 12 months previous. The establishments are running full time and at about 65 per cent of full capacity.

In upper leather, there is a slight increase in demand over that of the last month of the previous quarter; but not very much difference is noted as compared with the corresponding season in 1898. Wages show no change since our last report and there has been no advance in cost of stock since that time. Average selling prices remain the same, some grades having advanced slightly and others fallen off. Collections are good; factories have run full time since March 1; three-fourths full time previously to that, and they are now running at about 50 per cent of their capacity.

In Machines and Machinery, demand is from 20 to 25 per cent better than in December and very much greater than that for the corresponding season in 1898. Wages have in some cases increased from five to 10 per cent but this change has not taken place universally. The cost of stock has increased all along the line. Forged steel billets have advanced 10 per cent, brass goods five to 10 per cent, copper 24 per cent, tin 34 per cent, steel bars 40 per cent, and iron bars 30 per cent, since our last report. Only slight advances have been made in selling prices as yet, possibly about five per cent. The establishments are running full time and at full capacity.

Persons employed in the aggregate as reported from identical establishments for the final week of this and the preceding quarter show very little change, but the weekly payroll rose from \$11,222 to \$12,348, a gain of 10.03 per cent.

WOBURN. The leather industry here is practically in the same condition as during the corresponding months in 1898. Employment, as to numbers, has increased since the beginning of the year, but, although there has been no reduction in rates, the aggregate earnings for the last week of the present quarter are somewhat less than for the last week of the preceding quarter, owing to the fact that in some cases employes have not worked full time. There is some uncertainty noted here on account of the proposed consolidation of establishments in the industry, and its probable outcome. The cost of materials has increased, and also the price of product; but not, it is claimed, to the same extent. One of the firms visited has given up tanning, although still continuing the currying of leather. This has caused a decrease in the number employed. The general feeling in the industry, as expressed by employers, is favorable to improved business conditions. Returns from the same establishments for the final week of this and the preceding quarter show a gain in the aggregate of 6.67 per cent in the number employed, while the weekly payroll shows a decline from \$9,628 to \$9,421, or 2.15 per cent.

WORCESTER. General industrial improvement is reported since the beginning of the year. In Metals and Metallic Goods, the iron foundries estimate a gain of fully 50 per cent over the first quarter of 1898. Wages have not changed since last August, but there are indications of

increases likely to be made. Stock is 33 per cent higher than in December, and selling prices of product 25 per cent higher. Collections are fairly good, and establishments are running on full time, and from 72 per cent up to full capacity.

Brass and bronze foundries also show improvement, the demand in March showing a gain over the last months of 1898 of about 10 per cent. Generally, the improvement in demand for the first three months of 1899 over that for the corresponding period of 1898 is about 50 per cent. Wages have not changed since last report. Since the December report the cost of stock has increased materially which has caused a corresponding rise in the price of castings. Collections vary but are generally good. As a rule, foundries are running at full capacity and on full time.

In the malleable iron establishments, demand is fully 10 per cent greater than during the quarter covered by our last report, and shows a still greater improvement over that for the first quarter of 1898. Wages in some instances have advanced slightly, while the cost of stock has increased 60 per cent causing an advance in selling prices. Collections are fair and the establishments are running from 75 per cent up to full capacity. The question of stability in the prevailing high prices of raw material seems to be the only disturbing factor in the present situation.

In the wire goods establishments, demand shows an increase from 10 to 25 per cent since December, and is much larger than during the first quarter of 1898. While wages have not generally changed slight increases have been granted since December in some factories, and the general tendency is upward. The cost of stock has advanced about 30 per cent. Selling prices while showing a material advance in some goods have improved but slightly in others, possibly from five to 10 per cent. Collections are good and factories are running at full capacity. In the manufacture of drawn wire and wire rope, wages were increased from four to 10 per cent March 1, varying in different instances. Stock is much higher than in December as also are selling prices.

Boiler manufacturers report more inquiry but not much greater demand than for the same season in 1898, although demand has increased since the beginning of the year. High prices of the stock and western competition are factors in the situation. While establishments are running full time, they report operations at not more than 50 per cent of full capacity.

In machine tools, also, great improvement is noted in demand generally, in some cases running from 10 to 60 per cent as compared with last December. There is a notable increase in foreign shipments. Wages have risen from 10 to 15 per cent. The cost of stock has largely increased. Selling prices have not advanced on some lines of product, but on others have risen from five to 10 per cent. Establishments are running at full or nearly at full capacity.

For machine knives steady increase in demand appears since last September. For machine shears the first three months of this year show conditions better than for many months previous, although demand has slackened somewhat at the close. Wages have advanced five per cent. For machine screws, demand has increased, and an advance in wages is shown.

In Machines and Machinery, activity is the rule, varying according to the product. Paper box machinery shows a demand better than for first three months of last year, and also a marked increase, at least 10 per cent, during the month of March, 1899, over that for December, 1898. Wages have been slightly increased in some cases, but there has been no general advance. Stock has advanced in cost with no corresponding change in selling prices. Collections are slow. Factories are running full time and at full capacity. Substantially the same statements apply to the manufacture of water wheels and power transmission machinery.

With respect to textile machinery, reports are not quite so favorable. While there is an increase in demand for cotton machinery since December which is greater than that for the same season last year, the demand for woollen machinery has either fallen off or at the best shows no improvement over conditions existing last year. This accords with the manufacturing conditions in the textiles, and is confirmatory of the reports made by us in these lines. Some manufacturers of woollen machinery are doing practically nothing, and few are running at more than one-third of their capacity, while shops which combine the manufacture of both cotton and woollen machinery are running up to 80 per cent of their capacity due entirely to orders for cotton machinery. Rates of wages have not changed since our last report but the price of stock has risen greatly. Selling prices remain unchanged and collections are from fair to good.

For rolling-mill machinery there is shown a much greater demand for the first quarter of this year than for the same period in 1898, while the improvement in demand for March is at least 15 per cent over that for December. Wages remain the same as at the date of our last report, while stock and selling prices have advanced. Collections are good and establishments are running on full time and at full capacity. The demand has warranted the extension of plants in some instances. For woodworking machinery about the same demand is shown as during the quarter covered by our last report, and the first quarter of the year does not exhibit material change as compared with the same season of last year. Wages generally remain unchanged. Stock is higher but selling prices have not greatly changed. Collections are fair, and factories are running full time but not at full capacity, individual cases showing as low as 20 per cent of full capacity.

In the satinet industry, no improvement is noted since December, and demand is somewhat less than in the first quarter of 1898; indica-

tions of better conditions appear, however. Wages are unchanged; cost of stock advanced in some kinds; and the selling price of product has dropped slightly. Full time and full capacity are reported.

In the aggregate in the different industries, establishments reporting 5,371 persons on the payrolls for the week ending December 24, 1898, report 5,694 for the last week of the present quarter, a gain of 6.01 per cent, the weekly payroll for these persons rising from \$52,436 to \$59,988, a gain of 14.40 per cent.

To summarize: The reports by industries indicate a decline in the number employed for the last week in the present quarter as compared with the last week of the preceding quarter, in the following industries:

Building; Musical Instruments and Materials; and Worsteds Goods. These declines are, as will be understood from statements contained in the preceding review, almost entirely due to the difference in the seasons. On the other hand, the following industries show increased employment:

Boots and Shoes (including also Soles, Heels and Cut Stock); Clothing; Cooking, Lighting, and Heating Apparatus; Cotton Goods; Leather; Liquors and Beverages (not spirituous); Liquors: Malt, Distilled, and Fermented; Machines and Machinery; Metals and Metallic Goods; Paper; Printing, Publishing, and Bookbinding; Print Works, Dye Works, and Bleacheries; and Woollen Goods.

In the aggregate, establishments which were canvassed in the different industries named show a gain in the comparison of persons employed from 70,350 to 73,203, or 4.06 per cent; the weekly payroll for these employes rising from \$548,379 to \$590,917, an increase of 7.76 per cent.

By cities, a comparison of the final week in this and the previous quarter shows a larger number employed in Brockton, Chicopee, Fall River, Haverhill, Holyoke, Lawrence, Lowell, Lynn, New Bedford, Woburn, and Worcester; and, in the industries compared, diminished employment due principally to the usual seasonal conditions, in Boston, Cambridge, and Peabody. The weekly payroll for the persons reported declined in Boston, Cambridge, and Woburn, and increased elsewhere.

Cost of Living. The changes in the prices of articles of household consumption, during the first three months of the year, have not materially affected the cost of living. Indeed, such changes as are noted are due to differences of season, and do not concern the full list of commodities. There has been neither general advance nor decline, so far as relates to retail prices of standard articles. Some grades of flour are slightly lower than at the beginning of the year, others slightly higher.

The following table gives retail quotations at the beginning of each of the first three months of the year, and the closing quotations March 31, for standard commodities in the Boston market. Quotations in other cities vary but slightly from these, in some cases being lower and in others higher.

Retail Prices, Standard Articles, Boston Market, 1899.

ARTICLES.	January 1	February 1	March 1	March 31
Beef, lb. sirloin steak . . . . .	.23 @ .25	.25 @ .28	.28	.25 @ .28
rump steak . . . . .	.25 @ .27	.28 @ .30	.30	.25 @ .30
rib roast . . . . .	.12 @ .18	.12 @ .20	.12 @ .20	.12 @ .20
chucks . . . . .	.06 @ .10	.08 @ .12	.08 @ .12	.07 @ .10
corned, fancy brisket . . . . .	.09 @ .10	.10	.10 @ .12	.10
corned, ordinary . . . . .	.05 @ .08	.06 @ .10	.06 @ .10	.05 @ .08
Lamb, lb. hind quarter . . . . .	.15 @ .17	.14	.14	.14
fore quarter . . . . .	.10	.08	.08	.08
side . . . . .	.12	.12	.12	.11
short chops . . . . .	.23 @ .25	.20	.20	.20 @ .25
Mutton, lb. hind quarter	-	.12 ¹ / ₂	.12 ¹ / ₂	.12 ¹ / ₂
fore quarter . . . . .	.10	.07	.07	.06
whole . . . . .	.10	.08 ¹ / ₂	.09	.09
short chops	-	.20	.20	.20
Tripe, lb. . . . .	.08	.08	.08	.08
Ham, lb. . . . .	.09	.09	.09	.09 @ .10
Bacon, lb. . . . .	.10	.11	.10	.10
Pork, lb. fresh . . . . .	.08	.07	.09	.09 @ .10
salt . . . . .	.08	.08	.08	.08
corned shoulder . . . . .	.07	.07	.07	.07
smoked shoulder . . . . .	.07	.07	.07	.07
smoked rib . . . . .	.08	.08	.08	.08
pigs' feet . . . . .	.08	.08	.08	.08
Sausages, lb. ordinary . . . . .	.10	.10	.10	.10
Bologna . . . . .	.10	.10	.10	.10
Frankfort . . . . .	.10	.10	.10	.10
Lard, lb. . . . .	.08	.08	.08	.08
Butter, lb. best creamery . . . . .	.30	.25	.30	.25
good creamery . . . . .	.28	.22	.28	.22
dairy . . . . .	.25	.20	.25	.20
Cheese, lb. best domestic . . . . .	.15	.15	.15	.15
ordinary . . . . .	.12	.12	.12	.12
Eggs, dozen, fresh . . . . .	.30	.22	.28	.16 @ .18
case . . . . .	.35	.25	.30	.20 @ .22
suburban . . . . .	.45	.30	.35	.23 @ .25
Fish, lb. cod, fresh . . . . .	.08	.08	.10	.10
cod, salt . . . . .	.10	.10	.10	.10
haddock . . . . .	.08	.08	.10	.10
halibut, fresh . . . . .	.25	.25	.25	.25
halibut, smoked . . . . .	.20	.20	.20	.20
Lobsters, lb. boiled . . . . .	.22	.22	.25	.25
Clams, qt. . . . .	.20	.20	.20	.20
Turkey, lb. medium quality . . . . .	.16 @ .20	.20	.25	.20
Chickens, lb. native . . . . .	.16 @ .18	.25	.25	.25
good, . . . . .	.12 ¹ / ₂ @ .15	.20	.20	.20
Fowl, lb. . . . .	.12 ¹ / ₂ @ .15	.16	.17	.16
Geese, lb. . . . .	.16 ¹ / ₂	.20	.22	.22
Ducks, lb. . . . .	.16 ¹ / ₂	.18	.20	.20
Potatoes, pk. white (old) . . . . .	.25	.25	.30	.25
Onions, qt. . . . .	.05	.05	.05	.05
Cabbage, head . . . . .	.10	.10	.10	.10
Apples, pk. . . . .	.50	.50	.60	.50

EDITORIAL.

With the present number of the Bulletin we introduce a new system of paging. Hereafter the numbers for each year will be paged in consecutive order, beginning with the first number, January, and closing with the final number, issued in October, and with that number an index will be enclosed in order that the numbers for each year may be bound.

As this plan was not followed in the issues for 1897 and 1898, we now append a tabular statement of the articles which have appeared in previous issues, including also the issue for January, 1899, with references to the number of the Bulletin in which such articles appeared. This will serve as a general index for the entire series up to the present number.

CLASSIFICATION OF SUBJECTS.	Number	Month	Year
Accidents to employes in Massachusetts	4	October	1897
Aims of trades unions in England, the	9	January	1899
American goods in foreign markets	9	January	1899
Arbitration and conciliation	3	July	1897
Baltimore & Ohio relief department, the	4	October	1897
Comparative position of Boston wages. 1870-1898	9	January	1899
Comparative wages and earnings	3	July	1897
Cotton industry, the	2	April	1897
Cotton manufacturing in Massachusetts	5	January	1898
Editorial	1	January	1897
Editorial — notice of removal	7	July	1898
German and French progress in weaving	9	January	1899
Home ownership in Massachusetts	5	January	1898
Hours of labor	3	July	1897
Hours of labor in domestic service	8	October	1898
Improvement of the slums in London, the	7	July	1898
Legislation of 1897 relating to hours of labor, and to the employment of women and children, the	6	April	1898
Maintenance of the standard of living, the	9	January	1899
Model houses	3	July	1897
Objections to domestic service, the	8	October	1898
Opening for American cottons in India and China, the	8	October	1898
Pay of city laborers	1	January	1897
Prison industries in Massachusetts	2	April	1897
Productive age, the	7	July	1898
Productive conditions in the Philippines	8	October	1898
Quarterly review of employment and earnings — October 1897 to January 1898	6	April	1898
Quarterly review of employment and earnings — February to May, 1898	7	July	1898
Quarterly review of employment and earnings — June to September, 1898	8	October	1898
Quarterly review of employment and earnings — October 1898 to January 1899	9	January	1899
Savings in Massachusetts	1	January	1897
Strikes and lockouts	2	April	1897
Tramp census, a	2	April	1897
Wages under contracts for public work	4	October	1897
Wealth accumulation through life insurance	6	April	1898



LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 11.

JULY.

1899.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDGIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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MASSACHUSETTS LABOR BULLETIN.

No. 11.

JULY.

1899.

CERTAIN TENEMENT CONDITIONS IN BOSTON.

In the reports of this Department for the years 1891 and 1892 the Bureau published the results of an exhaustive investigation into tenement house conditions in the city of Boston. Early in 1898 two small sections of the city were recanvassed by persons not connected with the Bureau upon substantially the same basis, partly for the purpose of bringing the canvassers, who were students of social problems in Boston University and Wellesley College, into direct contact with actual conditions in our closely crowded centres of population, and partly to secure data for comparison with the results obtained by the Bureau six years previously.

One of the sections selected was at the North End, and formed what were originally voting precincts 1, 2, and 3 of old ward 6, the territory being contained within lines drawn from the Charles River bridge through the centre of Prince Street to Hanover Street, thence through the centres of Hanover Street, Hanover Avenue, North, Commercial, and Hanover Streets to the water line at the Chelsea ferry, and thence by the water line to the point of beginning.

The other section formed precinct 3 of old ward 12, and was bounded by a line beginning at the junction of Albany and Way Streets and drawn thence through the centres of Albany, Harvard, and Tyler Streets, Broadway, Harrison Avenue, and Way Street to the point of beginning.

The North Section falls within one of the most crowded parts of the city, a section which formerly contained the residences of well-to-do citizens who have gradually been replaced by successive relays of immigrants. It contains some of the most recent European accessions, Italians, Russians, and others. In the canvass made by the Bureau in 1891, this territory contained a considerable number of unclean and crowded places, the criticism applying not merely to the tenements, but to many of the courts and alleys, some of which were very dark and not open to the sun. Many of the tenements were old and in poor repair, and the houses closely crowded together.

The territory in old ward 12 selected for the recent canvass is of a different character. It contains tenements of a different class and of more recent construction, but its population is dense and its condition constantly changing under the pressure of modern life. The students who canvassed the North Section were under the general direction of Prof. F. S. Baldwin of Boston University, while those who performed the work in the other district were assisted and directed by Miss Helena S. Dudley of the Dennison House, a college settlement house within the district canvassed.

The results of the present canvass are not assumed to be exhaustive. They must be regarded as determined from a canvass of a considerable number of tenements within the districts named, and are to be accepted as fairly typical of conditions within the specified districts rather than complete. The entirely voluntary nature of the canvass and the difficulties involved in the work caused the results to be somewhat fragmentary as compared with those obtained under official authority by this Department; and this should be taken into account in comparing them with those brought out in the tenement house census of 1891.

It will be understood, of course, that this Bureau was not directly connected with the canvass, except so far as to bring the methods pursued into conformity with those of the tenement house census as far as possible. The returns have been placed in charge of the Bureau for tabulation, however, and the statistics form the subject of this article.

In the tables the terms "North Section" and "South Section" have been used to discriminate the districts.

The first table relates to the North Section and presents the number of tenements to a house, and the number of rooms to a tenement; the number of families having a specified number of rooms; the number of persons residing in such rooms, by sex; the whole number of rooms in all tenements considered, with the average number of persons to a room.

North Section.

NUMBER OF TENEMENTS TO A HOUSE, AND NUMBER OF ROOMS TO A TENEMENT.	Number of Families hav- ing Specified Number of Rooms	NUMBER OF PERSONS			Whole Num- ber of Rooms in all Tene- ments Considered	Average Number of Persons to a Room
		Males	Females	Total		
<i>One Tenement to a House.</i>	64	257	151	408	436	0.94
2 rooms,	2	10	3	13	4	3.25
3 rooms,	3	3	2	5	9	0.56
4 rooms,	8	20	22	42	32	1.31
5 rooms,	7	30	21	51	35	1.46
6 rooms,	19	69	47	116	114	1.02
7 rooms,	5	17	9	26	35	0.74
8 rooms,	4	29	7	36	32	1.13
9 rooms,	4	16	13	29	36	0.81
10 rooms,	4	19	5	24	40	0.60
11 rooms,	4	22	10	32	44	0.73
12 rooms,	1	3	4	7	12	0.58
14 rooms,	2	9	7	16	25	0.57
15 rooms,	1	10	1	11	15	0.73

North Section — Continued.

NUMBER OF TENEMENTS TO A HOUSE, AND NUMBER OF ROOMS TO A TENEMENT.	Number of Families hav- ing Specified Number of Rooms	NUMBER OF PERSONS			Whole Num- ber of Rooms in all Tenement- ments Considered	Average Number of Persons to a Room
		Males	Females	Total		
<i>Two Tenements to a House.</i>						
	99	225	227	452	396	1.14
1 room,	2	4	1	5	2	2.50
2 rooms,	13	21	22	43	26	1.65
3 rooms,	32	56	62	118	96	1.23
4 rooms,	26	65	68	133	104	1.28
5 rooms,	11	31	39	70	55	1.27
6 rooms,	5	13	15	28	30	0.93
7 rooms,	4	20	11	31	28	1.11
8 rooms,	3	5	6	11	24	0.46
9 rooms,	1	3	1	4	9	0.44
10 rooms,	1	1	1	2	10	0.20
12 rooms,	1	6	1	7	12	0.58
<i>Three Tenements to a House.</i>						
	338	771	761	1,532	1,147	1.34
1 room,	6	7	7	14	6	2.33
2 rooms,	56	91	95	186	112	1.66
3 rooms,	130	271	271	542	390	1.39
4 rooms,	100	273	245	518	400	1.30
5 rooms,	31	84	100	184	155	1.19
6 rooms,	9	32	27	59	54	1.09
7 rooms,	2	6	6	12	14	0.86
8 rooms,	2	4	7	11	16	0.69
Not stated,	2	3	3	6	-	-
<i>Four Tenements to a House.</i>						
	272	594	594	1,188	850	1.40
1 room,	12	15	17	32	12	2.67
2 rooms,	60	113	94	207	120	1.73
3 rooms,	107	221	240	461	321	1.44
4 rooms,	72	187	180	367	288	1.27
5 rooms,	17	46	54	100	85	1.18
6 rooms,	4	12	9	21	24	0.88
<i>Five Tenements to a House.</i>						
	181	404	410	814	562	1.45
1 room,	7	4	10	14	7	2.00
2 rooms,	53	95	91	186	106	1.75
3 rooms,	57	124	142	266	171	1.56
4 rooms,	43	113	93	211	172	1.23
5 rooms,	20	66	68	134	100	1.34
6 rooms,	1	2	1	3	6	0.50
<i>Six Tenements to a House.</i>						
	212	480	457	937	585	1.60
1 room,	8	9	7	16	8	2.00
2 rooms,	67	102	121	223	134	1.66
3 rooms,	107	277	250	527	321	1.64
4 rooms,	20	64	52	116	80	1.45
5 rooms,	6	18	18	36	30	1.20
6 rooms,	2	7	5	12	12	1.00
Not stated,	2	3	4	7	-	-
<i>Seven Tenements to a House.</i>						
	126	261	285	549	332	1.65
1 room,	9	11	12	23	9	2.56
2 rooms,	48	86	105	191	96	1.99
3 rooms,	53	120	128	248	159	1.56
4 rooms,	12	34	35	69	48	1.44
5 rooms,	4	10	8	18	20	0.90
<i>Eight Tenements to a House.</i>						
	149	321	332	653	427	1.53
1 room,	5	5	3	8	5	1.60
2 rooms,	46	84	79	163	92	1.77
3 rooms,	60	142	151	293	180	1.63

North Section — Concluded.

NUMBER OF TENEMENTS TO A HOUSE, AND NUMBER OF ROOMS TO A TENEMENT.	Number of Families hav- ing Specified Number of Rooms	NUMBER OF PERSONS			Whole Num- ber of Rooms in all Tene- ments Considered	Average Number of Persons to a Room
		Males	Females	Total		
<i>Eight Tenements to a House — Con.</i>						
4 rooms,	30	71	82	153	120	1.28
5 rooms,	6	18	15	33	30	1.10
Not stated,	2	1	2	3	-	-
<i>Nine Tenements to a House.</i>						
1 room,	53	134	109	243	169	1.44
1 room,	1	1	1	2	1	2.00
2 rooms,	8	15	12	27	16	1.69
3 rooms,	26	67	49	116	78	1.49
4 rooms,	17	48	43	91	68	1.34
6 rooms,	1	3	4	7	6	1.17
<i>Ten Tenements to a House.</i>						
1 room,	61	108	113	221	158	1.40
1 room,	3	3	2	5	3	1.67
2 rooms,	27	46	51	97	54	1.80
3 rooms,	25	49	47	96	75	1.28
4 rooms,	5	9	11	20	20	1.00
6 rooms,	1	1	2	3	6	0.50
<i>Eleven Tenements to a House.</i>						
1 room,	10	13	19	32	27	1.19
2 rooms,	4	4	8	12	8	1.50
3 rooms,	5	6	9	15	15	1.00
4 rooms,	1	3	2	5	4	1.25
<i>Twelve Tenements to a House.</i>						
1 room,	64	155	132	287	188	1.53
2 rooms,	30	63	46	109	60	1.82
3 rooms,	14	31	29	60	42	1.43
4 rooms,	14	38	41	79	56	1.41
5 rooms,	6	23	16	39	30	1.30
<i>Fifteen Tenements to a House.</i>						
1 room,	23	49	57	106	62	1.71
2 rooms,	7	12	12	24	14	1.71
3 rooms,	16	37	45	82	48	1.71
<i>Sixteen Tenements to a House.</i>						
1 room,	30	64	71	135	84	1.61
2 rooms,	10	16	21	37	20	1.85
3 rooms,	12	29	26	55	36	1.53
4 rooms,	7	16	21	37	28	1.32
Not stated,	1	3	3	6	-	-
<i>Seventeen Tenements to a House.</i>						
1 room,	12	22	22	44	43	1.02
2 rooms,	1	1	1	2	2	1.00
3 rooms,	5	11	7	18	15	1.20
4 rooms,	4	6	11	17	16	1.06
5 rooms,	2	4	3	7	10	0.70
<i>Twenty Tenements to a House.</i>						
1 room,	20	44	46	90	57	1.58
2 rooms,	4	8	10	18	8	2.25
3 rooms,	15	33	34	67	45	1.49
4 rooms,	1	3	2	5	4	1.25

The families occupying one tenement to a house, which were covered by the canvass, numbered 64, including 408 persons, 257 of whom were males and 151 females. The whole number of rooms in these tenements was 436, and the average number of persons to a room, 0.94, or slightly less than one person to a room. Two families were found occupying two rooms each and containing 13 persons, or an average of 3.25 persons to a room; but this case was exceptional. In houses of this

class, that is to say, one-tenement houses, the largest average number of persons to a room, except the case just cited, was 1.46, this average resulting from 51 persons occupying 35 rooms in tenements of five rooms each, these 51 persons comprising seven families.

In houses containing two tenements to a house, 99 families were canvassed, comprising 452 persons, 225 of whom were males and 227 females. The whole number of rooms in these houses was 396, and the average number of persons to a room 1.14. In houses of this kind, two families were found occupying single-room tenements, the average number of persons to a room in these families being 2.50. These cases, however, were exceptional, and in all other instances the number of persons to a room was below two.

In houses containing three tenements, 338 families were canvassed, comprising 1,532 persons, 771 being males and 761 females. The whole number of rooms occupied by these families was 1,147, the average number of persons to a room being 1.34. In houses of this kind, six families were found occupying single-room tenements, the average number of persons to a room being 2.33, but in all other instances the number of persons to a room was below two.

In houses containing four tenements each, 272 families were canvassed, aggregating 1,188 persons, the males and females being equally divided. The whole number of rooms occupied was 850, the average number of persons to a room being 1.40. In these houses, 12 families were found in single-room tenements, averaging 2.67 persons to a room, but in every other case the average number of persons to a room was below two.

There were 181 families canvassed in houses containing five tenements each. These families included 814 persons, 404 being males and 410 females. The whole number of rooms occupied was 562, and the average number of persons to a room, 1.45. In these houses, seven families were found in single-room tenements, the average number of persons to a room, however, being but two.

In houses containing six tenements each, 212 families were canvassed, the aggregate number of persons being 937, including 480 males and 457 females. The whole number of rooms occupied by these families was 585, the average number of persons to a room being 1.60. Eight of these families were found in single-room tenements, the average number of persons to a room being but two, however.

In seven-tenement houses, 126 families were canvassed, comprising 549 persons, of whom 261 were males and 288 females. The aggregate number of rooms occupied was 332, and the average number of persons to a room 1.65. Nine of these families were found in single-room tenements, the average number of persons to a room being 2.56.

The canvass included 149 families living in houses containing eight tenements each. The aggregate number of persons in these families was

653, of whom 321 were males and 332 females. The whole number of rooms occupied was 427, the average number of persons to a room being 1.53. Five families were found in single-room tenements in these houses, but the average number of persons to a room was but 1.60.

In houses containing nine tenements each, 53 families were canvassed, the aggregate number of persons being 243, including 134 males and 109 females. The whole number of rooms occupied by these families was 169, and the average number of persons to a room, 1.44. In houses of this class, only one family, consisting of two persons, was found occupying but one room.

In houses containing 10 tenements each, 61 families were canvassed, including 221 persons, 108 being males and 113 females. These families occupied in the aggregate 158 rooms, the average number of persons to a room being 1.40. In all cases the average number of persons to a room in these houses was below two, although three families were found occupying single-room tenements.

There were 10 families canvassed in houses containing 11 tenements each, these families comprising 32 persons, 13 of whom were males and 19 females. The whole number of rooms occupied was 27, or an average of 1.19 persons per room. No single-room tenements were canvassed in these houses.

There were 64 families canvassed in houses containing 12 tenements each. The aggregate number of persons in these families was 287, including 155 males and 132 females. The aggregate number of rooms occupied was 188, and the average number of persons to a room, 1.53. There were no single-room tenements canvassed in these houses, and the average number of persons to a room in all cases was below two.

In houses containing 15 tenements each, 23 families were canvassed, comprising 106 persons, of whom 49 were males and 57 females. The whole number of rooms occupied was 62, and the average number of persons to a room, 1.71.

There were 30 families canvassed in houses containing 16 tenements each, the total number included in these families being 135, of whom 64 were males and 71 females. The whole number of rooms occupied was 84, and the average number of persons to a room, 1.61.

In houses containing 17 tenements each, 12 families were canvassed, comprising 44 persons, the males and females being equally divided. The whole number of rooms occupied was 43, and the average number of persons to a room, 1.02.

The largest number of tenements in any single house within the territory canvassed was found to be 20, and in these 20-tenement houses 20 families were canvassed, including 90 persons, of whom 44 were males and 46 females. The whole number of rooms occupied was 57, and the average number of persons to a room, 1.58. No single-room tenements were canvassed in houses containing 15, 16, 17, or 20 tenements to a

house, but in the 20-tenement houses four families were found, each of whom occupied a two-room tenement, and the average number of persons to a room in these tenements was 2.25. In the entire number of tenements canvassed there were but 35 families out of 1,714, the total number of families canvassed, which occupied tenements in which the average number of persons to a room was greater than two. Of these families, 29 occupied single-room tenements.

In the tenement house census of 1891 conducted by the Bureau, there were, within the territory covered by the present canvass, 184 families occupying tenements in which the average number of persons to a room was greater than two, and these families constituted 9.11 per cent of the total number of families residing in rented tenements within this district. In the present canvass, the number of such families forms 2.04 per cent of the total number of families considered.

It will be noticed that the average number of persons to a room derived from a consideration of all the houses of a given class, for example, all having one tenement each, or all having two tenements each, varies considerably from that obtained when each of the different kinds of tenements within such houses are considered independently. Thus, while it is true that the average number of persons to a room, all the one-tenement houses being considered, is 0.94, or less than one, there are a number of tenements within the one-tenement houses which show a much higher average number of persons to a room. Of these, the two-room tenements previously cited stand at the head, with an average of 3.25 persons to a room.

Disregarding, however, the variation within the classes, we may make a comparison of all the tenements aggregated in the different classes, with similar information obtained in the tenement house census of 1891.

In 1891 a certain number of tenement houses was returned as occupied by the owner but having also within them rented tenements. As this discrimination was not made in 1898 the houses thus returned in 1891 have been placed in the classes to which they belong; for example, under the designations, two tenements to a house, three tenements to a house, etc. in these and subsequent tables having the same form.

The figures for 1891 are given in the following table:

NUMBER OF TENEMENTS TO A HOUSE.	TENEMENT HOUSE CENSUS OF 1891					
	Number of Families having Specified Tenements	NUMBER OF PERSONS			Whole Number of Rooms in all Tenements Considered	Average Number of Persons to a Room
		Males	Females	Total		
One tenement to a house, . . .	154	535	448	983	895	1.10
Two tenements to a house, . . .	213	493	534	1,027	852	1.21
Three tenements to a house, . . .	496	1,047	1,130	2,177	1,706	1.28
Four tenements to a house, . . .	331	740	694	1,434	966	1.48
Five tenements to a house, . . .	208	409	443	852	537	1.59
Six tenements to a house, . . .	192	401	364	765	513	1.49

NUMBER OF TENEMENTS TO A HOUSE.	TENEMENT HOUSE CENSUS OF 1891					
	Number of Families having Specified Tenements	NUMBER OF PERSONS			Whole Number of Rooms in all Tenements Considered	Average Number of Persons to a Room
		Males	Females	Total		
Seven tenements to a house, . . .	121	234	249	483	306	1.58
Eight tenements to a house, . . .	139	283	273	556	351	1.58
Nine tenements to a house, . . .	42	100	51	151	95	1.91
Ten tenements to a house, . . .	55	118	130	248	156	1.59
Eleven tenements to a house, . . .	10	15	26	41	24	1.71
Twelve tenements to a house, . . .	-	-	-	-	-	-
Thirteen tenements to a house, . . .	26	51	51	102	80	1.28
Fifteen tenements to a house, . . .	-	-	-	-	-	-
Sixteen tenements to a house, . . .	15	27	28	55	38	1.45
Seventeen tenements to a house, . . .	-	-	-	-	-	-
Nineteen tenements to a house, . . .	18	44	45	89	52	1.71
Twenty tenements to a house, . . .	-	-	-	-	-	-
TOTALS,	2,020	4,497	4,496	8,993	6,571	1.37

The next table gives similar information for 1898.

NUMBER OF TENEMENTS TO A HOUSE.	CANVASS OF 1898					
	Number of Families having Specified Tenements	NUMBER OF PERSONS			Whole Number of Rooms in all Tenements Considered	Average Number of Persons to a Room
		Males	Females	Total		
One tenement to a house, . . .	64	257	151	408	436	0.94
Two tenements to a house, . . .	99	225	227	452	396	1.14
Three tenements to a house, . . .	338	771	761	1,532	1,147	1.34
Four tenements to a house, . . .	272	594	594	1,188	850	1.40
Five tenements to a house, . . .	181	404	410	814	562	1.45
Six tenements to a house, . . .	212	480	457	937	585	1.60
Seven tenements to a house, . . .	126	261	288	549	332	1.65
Eight tenements to a house, . . .	149	321	332	653	427	1.53
Nine tenements to a house, . . .	53	134	109	243	169	1.44
Ten tenements to a house, . . .	61	108	113	221	158	1.40
Eleven tenements to a house, . . .	10	13	19	32	27	1.19
Twelve tenements to a house, . . .	64	155	132	287	188	1.53
Thirteen tenements to a house, . . .	-	-	-	-	-	-
Fifteen tenements to a house, . . .	23	49	57	106	62	1.71
Sixteen tenements to a house, . . .	30	64	71	135	84	1.61
Seventeen tenements to a house, . . .	12	22	22	44	43	1.02
Nineteen tenements to a house, . . .	-	-	-	-	-	-
Twenty tenements to a house, . . .	20	44	46	90	57	1.58
TOTALS,	1,714	3,902	3,789	7,691	5,523	1.39

These tables show that in the tenement house census of 1891 there were 2,020 families canvassed upon the territory in the North Section, while but 1,714 families were included in the canvass of 1898. When all these families were considered in 1891, the average number of persons to a room was found to be 1.37, and the corresponding average derived from the canvass of 1898 was found to be 1.39, indicating no material change in conditions when all the families are taken into account. Slight changes will be observed, however, when tenements of the different classes are

considered. Thus, the average number of persons to a room in the one-tenement houses in 1891 was 1.10, and the corresponding average in 1898 is 0.94, indicating a slightly less crowded condition in these tenements.

In several other cases the average number of persons to a room in certain kinds of tenement houses was found to be higher in 1891 than in 1898, but, on the other hand, there are several instances where the higher average appears in 1898. For example, in the houses containing six tenements each, the average number of persons to a room in 1891 was 1.49, while the corresponding average in the canvass of 1898 was found to be 1.60. It is not necessary to point out all the changes in detail, as they may be readily seen in the tables.

The following table presents the general statistics for the South Section for 1898 :

South Section.

NUMBER OF TENEMENTS TO A HOUSE, AND NUMBER OF ROOMS TO A TENEMENT.	Number of Families hav- ing Specified Number of Rooms	NUMBER OF PERSONS			Whole Num- ber of Rooms in all Ten- ements Considered	Average Number of Persons to a Room
		Males	Females	Total		
<i>One Tenement to a House.</i>	29	144	107	251	282	0.89
5 rooms,	2	5	5	10	10	1.00
6 rooms,	4	8	10	18	24	0.75
7 rooms,	1	4	5	9	7	1.29
8 rooms,	4	14	15	29	32	0.91
9 rooms,	3	9	9	18	27	0.67
10 rooms,	7	35	27	62	70	0.89
11 rooms,	1	5	6	11	11	1.00
12 rooms,	1	4	2	6	12	0.50
13 rooms,	3	25	8	33	39	0.85
16 rooms,	1	8	6	14	16	0.88
17 rooms,	2	27	14	41	34	1.21
<i>Two Tenements to a House.</i>	55	140	152	292	292	1.00
1 room,	3	1	4	5	3	1.67
2 rooms,	7	8	14	22	14	1.57
3 rooms,	11	20	23	43	33	1.30
4 rooms,	5	4	11	15	20	0.75
5 rooms,	5	15	20	35	25	1.40
6 rooms,	8	17	22	39	43	0.81
7 rooms,	2	4	6	10	14	0.71
8 rooms,	5	29	10	39	40	0.98
9 rooms,	2	2	11	13	18	0.72
10 rooms,	4	19	18	37	40	0.93
11 rooms,	1	7	3	10	11	0.91
12 rooms,	1	9	6	15	12	1.25
14 rooms,	1	5	4	9	14	0.64
<i>Three Tenements to a House.</i>	53	118	135	253	230	1.10
2 rooms,	8	15	17	32	16	2.00
3 rooms,	10	12	18	30	30	1.00
4 rooms,	20	41	47	88	80	1.10
5 rooms,	7	18	27	45	35	1.29
6 rooms,	1	3	5	8	6	1.33
7 rooms,	1	2	1	3	7	0.43
8 rooms,	2	10	4	14	16	0.88
9 rooms,	3	13	12	25	27	0.93
13 rooms,	1	4	4	8	13	0.62

South Section — Concluded.

NUMBER OF TENEMENTS TO A HOUSE, AND NUMBER OF ROOMS TO A TENEMENT.	Number of Families hav- ing Specified Number of Rooms	NUMBER OF PERSONS			Whole Num- ber of Rooms in all Tenement- ments Considered	Average Number of Persons to a Room
		Males	Females	Total		
<i>Four Tenements to a House.</i>	35	68	86	154	138	1.12
1 room,	1	-	1	1	1	1.00
2 rooms,	7	7	12	19	14	1.36
3 rooms,	3	8	9	17	9	1.89
4 rooms,	24	46	60	106	96	1.10
6 rooms,	3	7	4	11	18	0.61
<i>Five Tenements to a House.</i>	59	95	112	207	182	1.14
1 room,	9	8	13	21	9	2.33
2 rooms,	11	15	13	28	22	1.27
3 rooms,	14	19	33	52	42	1.24
4 rooms,	19	40	41	81	76	1.07
5 rooms,	5	11	9	20	25	0.80
8 rooms,	1	2	3	5	8	0.63
<i>Six Tenements to a House.</i>	58	68	103	171	151	1.13
1 room,	10	4	9	13	10	1.30
2 rooms,	22	26	37	63	44	1.43
3 rooms,	17	23	37	60	51	1.18
4 rooms,	8	14	18	32	32	1.00
14 rooms,	1	1	2	3	14	0.21
<i>Seven Tenements to a House.</i>	21	32	34	66	57	1.16
1 room,	4	4	3	7	4	1.75
2 rooms,	11	13	19	32	22	1.45
3 rooms,	3	6	6	12	9	1.33
4 rooms,	2	8	4	12	8	1.50
14 rooms,	1	1	2	3	14	0.21
<i>Eight Tenements to a House.</i>	22	32	31	63	52	1.21
1 room,	10	12	9	21	10	2.10
2 rooms,	2	2	2	4	4	1.00
3 rooms,	3	6	5	11	9	1.22
4 rooms,	6	9	14	23	24	0.96
5 rooms,	1	3	1	4	5	0.80
<i>Nine Tenements to a House.</i>	8	4	12	16	13	1.23
1 room,	5	-	6	6	5	1.20
2 rooms,	1	1	2	3	2	1.50
3 rooms,	2	3	4	7	6	1.17
<i>Ten Tenements to a House.</i>	10	15	11	26	22	1.18
1 room,	1	-	1	1	1	1.00
2 rooms,	8	2	8	10	16	0.63
5 rooms,	1	13	2	15	5	3.00
<i>Eleven Tenements to a House.</i>	8	16	16	32	35	0.91
4 rooms,	5	7	8	15	20	0.75
5 rooms,	3	9	8	17	15	1.13

In tenements containing one tenement to a house, 29 families were canvassed, including 251 persons, 144 of whom were males and 107 females. The whole number of rooms occupied by these families was 282, and the average number of persons to a room, 0.89. In houses containing two tenements each, 55 families were canvassed, including 292 persons, 140 of whom were males and 152 females. The whole number of rooms occupied by these families was 292, the average number of

persons to a room being one. In three-tenement houses 53 families were canvassed, including 253 persons, 118 of whom were males and 135 females. These families occupied 230 rooms, the average number of persons to a room being 1.10. There were 38 families canvassed in houses containing four tenements each, the total number of persons within these families being 154, including 68 males and 86 females. The total number of rooms occupied was 138, and the average number of persons to a room, 1.12.

In five-tenement houses 59 families were canvassed, including 207 persons, of whom 95 were males and 112 females. These families occupied 182 rooms, the average number of persons to a room being 1.14. In houses containing six tenements 58 families were canvassed, including 171 persons, of whom 68 were males and 103 females. The total number of rooms occupied was 151, and the average number of persons to a room, 1.13. In houses containing seven tenements each, 21 families were canvassed, including 66 persons, 32 of whom were males and 34 females. The whole number of rooms occupied was 57, the average number of persons to a room being 1.16.

There were 22 families canvassed in houses containing eight tenements each. These families included 63 persons, 32 of whom were males and 31 females. The whole number of rooms occupied was 52, and the average number of persons to a room, 1.21. Eight families were canvassed in houses containing nine tenements to a house. These families included 16 persons, of whom four were males and 12 females. The whole number of rooms occupied was 13, and the average number of persons to a room, 1.23.

In houses containing 10 tenements each, 10 families were canvassed, including 26 persons, of whom 15 were males and 11 females. The whole number of rooms occupied by these families was 22, and the average number of persons to a room, 1.18. In houses containing 11 tenements each, eight families were canvassed, including 32 persons, the males and females being equally divided. These families occupied 35 rooms, the average number of persons to a room being 0.91.

Out of the whole number of families canvassed on this territory, 43 were found occupying single-room tenements, distributed as follows: In houses containing two tenements each, three; in houses containing four tenements each, one; in houses containing five tenements each, nine; in houses containing six tenements each, 10; in houses containing seven tenements each, four; in houses containing eight tenements each, 10; in houses containing nine tenements each, five; in houses containing 10 tenements each, one. In only three instances, however, was the average number of persons to a room found to rise above two, these averages resulting from the occupancy of nine rooms by nine families, each having a single room, in houses containing five tenements each, the average number of persons to a room being 2.33; the occupancy of 10 rooms by

10 families, one room to each family, in houses containing eight tenements each, the average number of persons to a room being 2.10; and the occupancy of five rooms by a single family in a house containing 10 tenements, the average number of persons to a room being three.

In the tenement house census conducted by the Bureau, to which we have previously referred, the number of families occupying tenements in which the average number of persons to a room was greater than two was found to be two, or 0.46 per cent of the whole number of families. In the present canvass the number of families occupying tenements in which the average number of persons was greater than two is 20 or 5.54 per cent of the whole number canvassed. The average number of persons to a room in tenements of different classes within the territory covered by the present canvass as shown in 1891 appears in the following table:

NUMBER OF TENEMENTS TO A HOUSE.	TENEMENT HOUSE CENSUS OF 1891					Whole Number of Rooms in all Tenements Considered	Average Number of Persons to a Room
	Number of Families having Specified Tenements	NUMBER OF PERSONS					
		Males	Females	Total			
One tenement to a house, . . .	35	138	122	260	306	0.85	
Two tenements to a house, . . .	56	123	138	261	268	0.97	
Three tenements to a house, . . .	41	72	87	159	154	1.03	
Four tenements to a house, . . .	115	216	228	444	391	1.14	
Five tenements to a house, . . .	79	101	142	243	239	1.02	
Six tenements to a house, . . .	42	58	62	120	88	1.36	
Seven tenements to a house, . . .	43	36	64	100	92	1.09	
Eight tenements to a house, . . .	8	4	14	18	15	1.20	
Nine tenements to a house, . . .	6	5	8	13	14	0.93	
Ten tenements to a house, . . .	7	7	12	19	17	1.12	
Eleven tenements to a house, . . .	-	-	-	-	-	-	
TOTALS,	432	760	877	1,637	1,534	1.03	

The next table gives similar information for 1898.

NUMBER OF TENEMENTS TO A HOUSE.	CANVASS OF 1898					
	Number of Families having Specified Tenements	NUMBER OF PERSONS			Whole Number of Rooms in all Tenements Considered	Average Number of Persons to a Room
		Males	Females	Total		
One tenement to a house, . . .	29	144	107	251	282	0.89
Two tenements to a house, . . .	55	140	152	292	292	1.00
Three tenements to a house, . . .	53	118	135	253	230	1.10
Four tenements to a house, . . .	33	68	86	154	138	1.12
Five tenements to a house, . . .	59	95	112	207	182	1.14
Six tenements to a house, . . .	58	68	103	171	151	1.13
Seven tenements to a house, . . .	21	32	34	66	57	1.16
Eight tenements to a house, . . .	22	32	31	63	52	1.21
Nine tenements to a house, . . .	8	4	12	16	13	1.23
Ten tenements to a house, . . .	10	15	11	26	22	1.18
Eleven tenements to a house, . . .	8	16	16	32	35	0.91
TOTALS,	361	732	799	1,531	1,454	1.05

The whole number of families canvassed upon this territory in the tenement house census of 1891 was 432, while the number canvassed in 1898 was 361. The average number of persons to a room, all the families being taken into account, was found to be 1.03 in 1891, and the corresponding percentage in 1898 was 1.05, showing practically no change in conditions when all the families are considered.

In some of the tenement houses of different classes, however, changes of more importance appear. Thus, in houses containing three tenements each, the average number of persons to a room shown in 1891 was 1.03, the average in 1898 being 1.10. In the five-tenement houses, the average number of persons to a room in 1891 was 1.02, and in 1898, 1.14. In houses containing nine tenements each, the average number of persons to a room was 0.93 in 1891, while the average disclosed in 1898 was 1.23. These are the more important instances in which a higher average was found in 1898 than in 1891. On the other hand, the average number of persons to a room in houses containing six tenements each in 1891 was 1.36, while the average in 1898 in houses of this class was 1.13.

SANITARY CONDITIONS.

The following table relates to the sanitary conditions in 1898 of the tenements, both outside and inside, the inside conditions being classified as to light and air, ventilation, and cleanliness.

SANITARY CONDITIONS.	OUTSIDE SANITARY CONDITION				INSIDE SANITARY CONDITION			
	Number of Families	Males	Females	Both Sexes	LIGHT AND AIR			
					Number of Families	Males	Females	Both Sexes
NORTH SECTION.	1,714	3,902	3,789	7,691	1,714	3,902	3,789	7,691
Excellent,	165	371	370	741	201	440	462	902
Good,	681	1,506	1,537	3,043	640	1,457	1,393	2,850
Fair,	609	1,430	1,321	2,751	648	1,445	1,457	2,902
Poor,	208	483	453	936	177	453	381	834
Bad,	45	99	98	197	42	94	86	180
Not stated,	6	13	10	23	6	13	10	23
SOUTH SECTION.	361	732	799	1,531	361	732	799	1,531
Excellent,	1	2	2	4	7	19	22	41
Good,	132	265	298	563	127	257	300	557
Fair,	157	295	318	613	164	347	339	686
Poor,	62	154	162	316	56	98	120	218
Bad,	8	15	18	33	5	10	14	24
Not stated,	1	1	1	2	2	1	4	5

SANITARY CONDITIONS.	INSIDE SANITARY CONDITION — Con.							
	VENTILATION				CLEANLINESS			
	Number of Families	Males	Females	Both Sexes	Number of Families	Males	Females	Both Sexes
NORTH SECTION.	1,714	3,902	3,789	7,691	1,714	3,902	3,789	7,691
Excellent,	185	411	420	831	114	230	245	475
Good,	580	1,286	1,257	2,543	459	966	1,027	1,993
Fair,	703	1,617	1,595	3,212	764	1,767	1,694	3,461
Poor,	204	495	433	928	324	812	721	1,533
Bad,	36	80	74	154	47	114	92	206
Not stated,	6	13	10	23	6	13	10	23
SOUTH SECTION.	361	732	799	1,531	361	732	799	1,531
Excellent,	7	19	22	41	11	30	20	59
Good,	97	189	237	426	154	301	357	658
Fair,	147	317	304	621	143	274	289	563
Poor,	98	175	204	379	33	83	73	156
Bad,	6	10	16	26	6	11	15	26
Not stated,	6	22	16	38	14	33	26	69

The grading of the tenements with respect to sanitary conditions is made upon the same plan as that adopted in the tenement house census conducted in 1891, and it is proper to explain briefly what is meant by the terms "excellent," "good," "fair," "poor," and "bad," employed in classifying the tenements. This can be done by quoting from the tenement house census the following statements:

Whether a given tenement should be placed in one or another of these classes was, of course, primarily determined by the judgment of the canvassers who first visited the premises. These canvassers were all carefully instructed according to an outline scheme covering every phase of the problem, and intended to guide them in characterizing the tenements. It is comparatively easy to classify those at either extremity of the scale; in other words, to determine which should be characterized as excellent or bad. The other grades represent conditions between these extremes, and the work of accurate classification requires considerable discrimination. Frequently a tenement is upon the border line separating one class from another. It may, for instance, be in the main excellent, but may have some slight drawback that to the mind of the investigator requires it to be classed as merely good. On the other hand, a tenement at the other extreme may have redeeming features that fairly entitle it to be classed as poor rather than as absolutely bad. Probably no two persons would independently arrive at exactly the same conclusions in all these cases, but, wherever it appeared, from the reports of the original investigators, that especially objectionable conditions existed, the territory was subsequently canvassed by different persons whose reports, made without knowledge of those previously rendered, were carefully compared with the results of the original inquiry in order that every point might be verified.*

As to "outside sanitary condition" it may in general be said that wherever surroundings were thoroughly good, the streets and sidewalks clean, the buildings provided with ample yards which were neatly kept, the houses so located as to have plenty of sunlight and fresh air, and the districts provided with proper facilities for drainage, the tenements were classed as excellent. The opposite of these conditions was considered

* This verification of the first reports of the canvassers applies only to the tenement house census of 1891. For obvious reasons the same plan could not be followed in the wholly voluntary canvass made by the students in 1898.

bad, while the classes between excellent and bad represent tenements whose surroundings vary in greater or less degree from the extreme standards adopted.

With respect to "inside sanitary condition" three different groups appear. The first of these relates to facilities for light and air; the second to ventilation; and the third to cleanliness. As before, the characterization "excellent" in each of these groups implies that the tenements were beyond criticism or not open to improvement; the term "bad" implies that they were dark, over-crowded, deficient in ventilation, and filthy; while the intermediate classes represent intermediate conditions.

In classifying the tenements as to "light and air" their general aspect was noted, excellence implying that the rooms opened upon wide streets, large yards, or unoccupied spaces, while tenements at the opposite extreme were upon narrow alleys or courts, or were so surrounded by buildings as to be insufficiently lighted or greatly restricted in adjacent air space.

Under "ventilation" particular facilities for communicating with the outer air were noted, and the number of windows, the presence or absence of living or sleeping rooms without exterior windows, the location of water closets with respect to living rooms, and with respect to the outer air, the provision of air shafts, whether or not cellars were provided with proper windows, or such other points as bore directly upon the subject were considered.

With respect to "cleanliness" the condition of halls, stairways, living rooms, cellars, water closets, and privies was considered, together with such other points within the tenement and building as were indicative of conditions under this head. It will, of course, be understood that the term "sanitary" is used throughout in a broad or general sense, which is sufficiently obvious from the explanations which have been given.

With this explanation we may consider the facts presented in the table on pages 87 and 88. Upon the territory canvassed in the North Section, the whole number of families visited was 1,714. These families included 7,691 persons, of whom 3,902 were males and 3,789 females. Of the whole number of families thus canvassed, 165 were found in tenements classed as excellent with respect to outside sanitary condition, 681 in tenements classed as good, 609 in tenements classed as fair, 208 in tenements classed as poor, and 45 in tenements classed as bad.

Passing to inside sanitary condition and considering the subject of light and air, 201 families were found in tenements classed as excellent in this respect, 640 in tenements classed as good, 648 in tenements classed as fair, 177 in tenements classed as poor, and 42 in tenements classed as bad. With respect to ventilation, 185 families were found in tenements classed as excellent, 580 in tenements classed as good, 703 in tenements classed as fair, 204 in tenements classed as poor, and 36 in tenements classed as bad. As to cleanliness, 114 families were found in tenements classed as excellent, 459 in tenements classed as good, 764 in tenements classed as fair, 324 in tenements classed as poor, and 47 in tenements classed as bad. There were six families for which the information as to sanitary conditions was not stated.

In order to permit comparisons with the results of the tenement house census with respect to the points contained in this table, we may say that upon the territory covered by the present canvass the following results were shown in the tenement house census of 1891.

The whole number of families canvassed was 2,020, and the percentages of the whole number residing in tenements of the different classes as regards outside sanitary condition were as follows: Excellent, 0.64 per cent; good, 47.87 per cent; fair, 32.08 per cent; poor, 16.49 per cent; bad, 2.92 per cent. The percentages of the whole number of families covered in the present canvass similarly classed is as follows: Excellent, 9.63 per cent; good, 39.73 per cent; fair, 35.53 per cent; poor, 12.14 per cent; bad, 2.63 per cent.

With respect to inside sanitary condition, under the head of light and air, the tenement house census showed the following percentages of the whole number of families in tenements of the different classes: Excellent, 1.19 per cent; good, 62.03 per cent; fair, 21.58 per cent; poor, 13.96 per cent; bad, 1.24 per cent. In the present canvass, the percentages of the whole number of families similarly obtained are as follows: Excellent, 11.73 per cent; good, 37.34 per cent; fair, 37.81 per cent; poor, 10.33 per cent; bad, 2.45 per cent.

As to ventilation, the percentages of families residing in tenements of the different classes as shown in the tenement house census of 1891 were as follows: Excellent, 0.94 per cent; good, 63.47 per cent; fair, 20.89 per cent; poor, 13.51 per cent; bad, 1.19 per cent. In the present canvass, the percentages are as follows: Excellent, 10.79 per cent; good, 33.84 per cent; fair, 41.02 per cent; poor, 11.90 per cent; bad, 2.10 per cent.

As to cleanliness, the percentages derived from the tenement house census of 1891 were as follows: Excellent, 3.07 per cent; good, 50.89 per cent; fair, 26.68 per cent; poor, 17.72 per cent; bad, 1.64 per cent; and from the present canvass as follows: Excellent, 6.65 per cent; good, 26.78 per cent; fair, 44.57 per cent; poor, 18.90 per cent; bad, 2.74 per cent.

Within the South Section, there were, as shown by the preceding table, 361 families included, comprising 1,531 persons, 732 of whom were males and 799 females. Of these families, the number residing in tenements of the different classes with respect to outside sanitary condition was as follows: Excellent, one; good, 132; fair, 157; poor, 62; bad, eight. With respect to inside sanitary condition, under the head of light and air, the numbers are as follows: Excellent, seven; good, 127; fair, 164; poor, 56; bad, five. As to ventilation, the numbers are as follows: Excellent, seven; good, 97; fair, 147; poor, 98; bad, six; and with respect to cleanliness, as follows: Excellent, 11; good, 154; fair, 143; poor, 33; bad, six.

The results of the tenement house census of 1891 within the same territory showed that the following numbers of families were living in tenements of each class with respect to outside sanitary condition: Excellent, none; good, 33; fair, 340; poor, 26; bad, 33. As to inside sanitary condition, under the head of light and air, the number of tenements in each class was as follows: Excellent, none; good, 141; fair,

259; poor, five; bad, 27. As to ventilation, excellent, none; good, 140; fair, 260; poor, five; bad, 27; and as to cleanliness, excellent, none; good, 93; fair, 292; poor, 20; bad, 27.

These numbers afford a basis of percentages which may be compared with percentages similarly obtained in the present canvass. In the tenement house census, of the whole number of families canvassed, 7.64 per cent were found in tenements classed as good with respect to outside sanitary condition; 78.70 per cent in tenements classed as fair; 6.02 per cent in tenements classed as poor; and 7.64 per cent in tenements classed as bad. In the present canvass, the percentages of the whole number of families considered are as follows: In tenements classed as excellent, 0.28 per cent; good, 36.57 per cent; fair, 43.49 per cent; poor, 17.17 per cent; bad, 2.22 per cent.

With respect to inside sanitary condition, under the head of light and air, the percentages of families in the different classes, as shown by the tenement house census, were as follows: Excellent, none; good, 32.64; fair, 59.95; poor, 1.16; bad, 6.25; and in the present canvass, as follows: Excellent, 1.94; good, 35.18; fair, 45.43; poor, 15.51; bad, 1.39.

As to ventilation, the percentages from the tenement house census are as follows: Excellent, none; good, 32.41; fair, 60.18; poor, 1.16; bad, 6.25; and in the present canvass, as follows: Excellent, 1.93; good, 26.87; fair, 40.72; poor, 27.15; bad, 1.66.

As to cleanliness, the percentages from the tenement house census are as follows: Excellent, none; good, 21.53; fair, 67.59; poor, 4.63; bad, 6.25; and from the present canvass, excellent, 3.05; good, 42.66; fair, 39.61; poor, 9.14; bad, 1.66.

In reporting the results of the tenement house census of 1891, it was pointed out that the tenements classed as excellent, good, or fair, need not specially engage attention. The tenements designated as poor or bad, however, form a class by themselves and include all tenements open to serious criticism. They may, therefore, be combined for further consideration. This is done in a series of tables, the first of which, next presented, shows the results of the recent canvass with respect to families residing in tenements having poor or bad outside sanitary conditions.

Families residing in Rented Tenements having Poor or Bad Outside Sanitary Conditions.

SECTIONS.	Number of Families in Specified Tenements	Number of Persons in Specified Tenements	Percentages of Specified Families of all Families in Rented Tenements	Percentages of Specified Number of Persons of Total Persons in Rented Tenements
North Section,	253	1,133	14.76	14.73
South Section,	70	349	19.39	22.80

At the North, the number of families canvassed in the specified tenements, that is to say, those having poor or bad outside sanitary conditions,

was 253, the total population in these families being 1,133. The percentage of these specified families of all the families in the tenements canvassed was 14.76, and the percentage of population of the total population canvassed, 14.73.

Within the territory canvassed at the South, 70 families, or 19.39 per cent of all the families canvassed in the district, were found in tenements having poor or bad outside sanitary conditions. The total population in these families was 349, comprising 22.80 per cent of the entire population canvassed.

The tenement house census of 1891 showed that upon the same territory at the North 19.41 per cent of all the families living in rented tenements, and 19.42 per cent of the population, were residing in tenements having poor or bad outside sanitary condition; and upon the same territory canvassed at the South, 13.66 per cent of all the families in rented tenements, and 9.04 per cent of the entire population, were residing in tenements having poor or bad outside sanitary condition.

The next table is similar in form to that just presented, and shows the number of families residing in rented tenements classed as poor or bad with respect to light and air, as disclosed by the present canvass.

Families residing in Rented Tenements classed as Poor or Bad with respect to Light and Air.

SECTIONS.	Number of Families in Specified Tenements	Number of Persons in Specified Tenements	Percentages of Specified Families of all Families in Rented Tenements	Percentages of Specified Number of Persons of Total Persons in Rented Tenements
North Section,	219	1,014	12.78	13.18
South Section,	61	242	16.90	15.81

Confining our analysis to the percentages shown in the preceding table, it appears that of the entire number of families canvassed upon the territory at the North, 12.78 per cent, comprising 13.18 per cent of the entire population canvassed, were residing in tenements classed as poor or bad with respect to light and air. Upon the same territory in the tenement house census of 1891, the corresponding percentages were 15.20 and 15.41.

Of the families canvassed upon the territory at the South, 16.90 per cent were classed as residing in tenements either poor or bad with respect to light and air, and these families include 15.81 per cent of the entire population canvassed. The corresponding percentages upon the same territory, as shown in the tenement house census, were 7.41 and 4.76.

The next table presents the data as to families residing in tenements classed as poor or bad with respect to ventilation.

Families residing in Rented Tenements classed as Poor or Bad with respect to Ventilation.

SECTIONS.	Number of Families in Specified Tenements	Number of Persons in Specified Tenements	Percentages of Specified Families of all Families in Rented Tenements	Percentages of Specified Number of Persons of Total Persons in Rented Tenements
North Section,	240	1,082	14.00	14.07
South Section,	104	405	28.81	26.45

Of the whole number of families canvassed at the North, 14 per cent, including 14.07 per cent of the entire population canvassed, were found in tenements classed as poor or bad with respect to ventilation. The corresponding percentages from the tenement house census upon the same territory were 14.70 and 14.92.

Of the whole number of families canvassed at the South, 28.81 per cent, comprising 26.45 per cent of the entire population canvassed, were found in tenements of this class. The corresponding percentages upon the same territory from the tenement house census being 7.41 and 4.76.

The next table presents similar information as to families residing in rented tenements classed as poor or bad with respect to cleanliness.

Families residing in Rented Tenements classed as Poor or Bad with respect to Cleanliness.

SECTIONS.	Number of Families in Specified Tenements	Number of Persons in Specified Tenements	Percentages of Specified Families of all Families in Rented Tenements	Percentages of Specified Number of Persons of Total Persons in Rented Tenements
North Section,	371	1,739	21.65	22.61
South Section,	39	182	10.80	11.89

Of the whole number of families canvassed at the North, 21.65 per cent, including 22.61 per cent of the entire population canvassed, were found in tenements classed as poor or bad with respect to cleanliness. The corresponding percentages upon the same territory, as shown by the tenement house census of 1891, were 19.36 and 20.26.

Of the families canvassed at the South, 10.80 per cent were found in tenements of this class, these families including 11.89 per cent of the entire population canvassed. The corresponding percentages upon the same territory from the tenement house census were 10.88 and 8.12.

We bring forward in a single table the percentages of the estimated total population of the sections canvassed, found in tenements of the different classes, and also the percentages of the population in the tenements only; the figures for 1898 and 1891 being included for comparison.

SECTIONS.	ON BASIS OF TOTAL ESTIMATED POPULATION OF THE DISTRICT					ON BASIS OF POPULATION IN RENTED TENEMENTS ONLY			
	Percentages in all Rented Tenements	PERCENTAGES IN TENEMENTS POOR OR BAD AS TO —				PERCENTAGES IN TENEMENTS POOR OR BAD AS TO —			
		Outside Sanitary Condition	INSIDE SANITARY CONDITION			Outside Sanitary Condition	INSIDE SANITARY CONDITION		
			Light and Air	Ventilation	Cleanliness		Light and Air	Ventilation	Cleanliness
North Section,									
1891,	94.10	18.27	14.50	14.04	19.06	19.42	15.41	14.92	20.26
1898,	72.94	10.74	9.62	10.26	16.49	14.73	13.18	14.07	22.61
South Section,									
1891,	73.38	6.63	3.50	3.50	5.96	9.04	4.76	4.76	8.12
1898,	69.40	15.82	10.97	18.36	8.25	22.80	15.81	26.45	11.89

It appears from the preceding table, first, that 72.94 per cent of the estimated total population of the territory canvassed was found in the rented tenements canvassed at the North, and 69.40 per cent at the South. While 14.73 per cent of the population found in the rented tenements canvassed at the North were residing in tenements classed as poor or bad with respect to outside sanitary condition, this population forms but 10.74 per cent of the entire estimated population of the district: and while 22.80 per cent of the population found in the rented tenements canvassed at the South were under outside sanitary conditions classed as poor or bad, this population constituted only 15.82 per cent of the entire estimated population of the section.

As to inside sanitary condition, the percentages of persons residing in the rented tenements canvassed at the North, found in tenements classed as poor or bad with respect to light and air, ventilation, and cleanliness, were respectively 13.18, 14.07, and 22.61, or on the basis of the estimated population of the entire district, 9.62, 10.26, and 16.49. Similarly, of the persons residing in the tenements canvassed at the South, the percentages found in tenements classed as poor or bad with respect to light and air, ventilation, and cleanliness, were 15.81, 26.45, and 11.89, respectively, or upon the basis of the entire estimated population of the section, 10.97, 18.36, and 8.25.

When the percentages of the persons, who, being residents of the tenements, were found in tenements classed as poor or bad with respect to sanitary conditions under the canvass of 1898, are compared with the corresponding percentages derived from the tenement house census of 1891 it will be seen that, so far as relates to the North Section, the percentages in 1898 are lower than those for 1891 except in the case of tenements classed as poor or bad in point of cleanliness, in which a slightly larger percentage of the tenement population was found in 1898 than in 1891. On the other hand, a similar comparison for the South Section shows in every case larger, and in general considerably larger, percentages in 1898 than in 1891. Upon the face of the returns, accepting the results of both canvasses as exactly portraying the localities, this would

indicate improvement in conditions at the North and progressive deterioration within the section canvassed at the South since 1891. Neither conclusion can be accepted without qualification, however.

In the first place, in any two investigations, since the designation of the tenements is largely a matter of judgment, the classification is not likely to be identical unless each canvass is conducted by the same persons. Again, the tenements present different aspects, especially as to outside conditions, at different seasons of the year, and this fact undoubtedly would affect the classification in different canvasses unless each was made at exactly corresponding dates. It should be borne in mind also that the percentages in every case represent a comparatively small number of persons, and that the transfer of a few tenements from one class to another, for example, from the class "fair" to the class "poor," would materially change the percentages. From an inspection of the returns, and from our knowledge of each of the sections covered, we are of the opinion that this has particularly affected the percentages relating to the South Section in the present canvass, and that differences of judgment on the part of the canvassers as to whether a tenement should be called "fair" or only "poor" have contributed to raise the percentages in comparison with those of 1891.

At the same time, it is clear from the figures showing the average number of persons to a room in this section, page 86, *ante*, that the population within the tenements is more dense than in 1891, as the averages in nearly every group were higher in 1898, and slightly higher for the section as a whole. This greater concentration of persons within houses originally intended for a much smaller population, would, of course, affect the ratings as to light and air, and ventilation, and probably as to cleanliness.

It is true that the average number of persons to a room, the entire number of tenements being considered, is also slightly higher in the North Section in 1898 than in 1891,* but in comparison with the conditions previously existing in each of the sections the change in this respect is less influential in the North Section than in the South, while for many of the groups of tenements as classified in the tables, a smaller average number of persons to a room is shown within that territory in 1898 than in 1891.

The judgment of different canvassers as to what tenements should be classed as absolutely bad is not likely to vary so widely as when discrimination must be used to determine whether a tenement is poor or fair or good. The following table presents the percentages for 1891 and 1898 with respect to the tenements called "bad" in each of the sections:

* See tables, page 82, *ante*.

Percentages of Families residing in Tenements classed as Bad with respect to Sanitary Conditions.

SECTIONS.	OUTSIDE SANITARY CONDITION		INSIDE SANITARY CONDITION					
			LIGHT AND AIR		VENTILATION		CLEANLINESS	
	Tenement House Census of 1891	Canvass of 1898	Tenement House Census of 1891	Canvass of 1898	Tenement House Census of 1891	Canvass of 1898	Tenement House Census of 1891	Canvass of 1898
North Section,	2.92	2.63	1.24	2.45	1.19	2.10	1.63	2.74
South Section,	7.64	2.22	6.25	1.39	6.25	1.66	6.25	1.66

It will be found, by reference to this table, that when the tenements classed as bad are considered as a separate group the percentages of the tenement families found within them in the South Section are invariably lower than in 1891, showing that the increase in the percentages relating to tenements classed together as poor and bad, previously cited, is caused by an increase in the families residing in tenements classed as poor, and not to an increase within those classed as bad.

In the North Section, however, the canvass of 1898 shows increased percentages of the families residing in tenements classed as bad, as compared with 1891, except in tenements classed as bad in outside conditions, in which the percentage dropped from 2.92 in 1891 to 2.63 in 1898.

The next table shows the number of families having or not having bath rooms, so far as determined by the canvass of 1898.

Families Having or Not Having Bath Rooms.

SECTIONS.	HAVING BATH ROOMS		NOT HAVING BATH ROOMS		NOT STATED		AGGREGATES	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section, . . .	38	174	1,443	6,362	233	1,155	1,714	7,691
South Section, . . .	36	200	322	1,313	3	18	361	1,531

Families Having or Not Having Bath Rooms—Concluded.

SECTIONS.	PERCENTAGES					
	HAVING BATH ROOMS		NOT HAVING BATH ROOMS		NOT STATED	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section, . . .	2.22	2.26	84.19	82.72	13.59	15.02
South Section, . . .	9.97	13.06	89.20	85.76	0.83	1.18

In the North Section, 38 families were reported as supplied with bath rooms, including in the aggregate 174 persons. In the other territory canvassed, 36 families, comprising 200 persons, had bath rooms. On the other hand, 1,443 families, comprising 6,362 persons out of the whole

number canvassed in the North Section, did not have bath rooms, while 322 families, comprising 1,313 persons in the South Section did not have bath rooms. There were 233 families at the North and three at the South for whom the information was not stated.

Reduced to percentages, out of the whole number of families canvassed, only 2.22 per cent at the North and only 9.97 per cent at the South were supplied with bath rooms. Similar percentages for the wards of which these sections formed part, as disclosed in the tenement house census, were, for the North 0.67 and for the South 13.44. Or, to put it in another way, of the families included in the present canvass in the North Section, 84.19 per cent were found without bath rooms, while for the whole ward in the tenement house census, 99.33 per cent of the families were found without bath rooms. And while 89.20 per cent of the families in the South Section were found without bath rooms in the present canvass, the percentage of families in the entire ward of which this section formed a part at the time of the tenement house census which were found without bath rooms was 86.56.

The next presentation is confined to families having bath rooms, and exhibits the number of bath rooms in connection with the number of families in each canvassed.

Proportion of Families to Bath Rooms.

SECTIONS AND NUMBER OF FAMILIES USING EACH BATH ROOM.	Number of Families having Bath Rooms	Number of Persons
NORTH SECTION.		
	38	174
1 family to a bath room,	15	67
2 families to a bath room,	4	23
Not stated,	19	84
SOUTH SECTION.		
	36	200
1 family to a bath room,	18	125
2 families to a bath room,	11	47
3 families to a bath room,	3	15
4 families to a bath room,	4	13

In the North Section 15 families were supplied with separate bath room accommodations, that is, each family had independent use of a bath room. Four families were under conditions where each bath room served for two families. In the other instances, 19 in number, the facts upon this point were not stated.

In the South Section 18 families had independent use of a bath room; 11 were under conditions where each bath room served for two families; three families had bath rooms used by three families each; and four families had bath rooms used by four families each.

The following table relates to the subject of water closets:

Families Having Water Closets or Privies.

SECTIONS.	HAVING WATER CLOSETS		HAVING PRIVIES		NOT STATED		AGGREGATES	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section, . .	1,601	7,219	106	455	7	17	1,714	7,691
South Section, . .	358	1,516	2	7	1	8	361	1,531

Families Having Water Closets or Privies — Concluded.

SECTIONS.	PERCENTAGES					
	HAVING WATER CLOSETS		HAVING PRIVIES		NOT STATED	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section, . .	93.41	93.86	6.18	5.92	0.41	0.22
South Section, . .	99.17	99.02	0.55	0.46	0.28	0.52

In brief, the table shows that out of the whole number of families canvassed in the North Section, 93.41 per cent were supplied with water closets, and in the South Section, 99.17 per cent. The corresponding percentages for the entire wards of which these sections formed part, as shown in the tenement house census of 1891, were, in the North Section, 91.88, and in the South Section, 92.29.

The number of families in connection with the number of water closets appears in the next table.

Proportion of Families to Water Closets.

NUMBER OF FAMILIES USING EACH WATER CLOSET.	NORTH SECTION		SOUTH SECTION	
	Number of Families having Water Closets	Number of Persons	Number of Families having Water Closets	Number of Persons
1 family to a water closet,	374	1,927	86	473
2 families to a water closet,	388	1,755	79	374
3 families to a water closet,	312	1,354	53	242
4 families to a water closet,	190	758	33	101
5 families to a water closet,	88	365	42	131
6 families to a water closet,	55	252	30	100
7 families to a water closet,	31	100	7	25
8 families to a water closet,	30	136	16	34
9 families to a water closet,	14	42	-	-
10 families to a water closet,	-	-	10	26
Not stated,	119	530	2	10
TOTALS,	1,601	7,219	358	1,516

Out of the whole number of families canvassed in the North Section, namely, 1,714, there were 374 which had independent water closets, or not in connection with other families; 388 were in tenements having a single closet to each two families; 312 were in tenements having a single

closet to each three families; 190 in tenements having a single closet to each four families. From this point, as the number of families to each closet increases, the aggregate number of families and persons decreases. Fourteen families were found under conditions requiring the use of a single closet by nine families.

In the South Section, out of 361 families canvassed, 86 had independent water closets; 79 families were in tenements requiring the use of one closet by two families; 53 in tenements having one closet to three families; 33 in tenements having one closet to four families; and 42 in tenements having one closet to five families. From this point onward the number of families in the aggregate decreases as the number of families to each closet increases, 10 families being found under conditions requiring the use of a single closet by the entire number.

The facts brought out as to yards are shown in the next table.

Families Having or Not Having Yards.

SECTIONS.	HAVING YARDS		NOT HAVING YARDS		NOT STATED		AGGREGATES	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section, . .	582	3,913	820	3,738	12	40	1,714	7,691
South Section, . .	307	1,301	53	222	1	8	361	1,531

Families Having or Not Having Yards—Concluded.

SECTIONS.	PERCENTAGES					
	HAVING YARDS		NOT HAVING YARDS		NOT STATED	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section, . .	51.46	50.88	47.84	48.60	0.70	0.52
South Section, . .	85.04	84.98	14.68	14.50	0.23	0.52

Summarizing the results of this table by percentages, it will be seen that of the total number of families canvassed in the North Section, namely, 1,714, there were 51.46 per cent which had the use of yards, while 47.84 per cent had no yards. In the South Section, the whole number of families canvassed being 361, there were 85.04 per cent which had the use of yards and 14.68 per cent were without yards.

The results of the tenement house census for the entire wards of which these sections formed part showed the following percentages: At the North, 59.76 per cent of the families had yards and 40.24 per cent were without yards. At the South, 58.76 had yards, and 41.24 were without yards.

The next table shows the proportion of families to yards in each of the sections.

Proportion of Families to Yards.

NUMBER OF FAMILIES USING EACH YARD.	NORTH SECTION		SOUTH SECTION	
	Number of Families having Yards	Number of Persons	Number of Families having Yards	Number of Persons
1 family to a yard,	46	295	23	215
2 families to a yard,	51	222	42	220
3 families to a yard,	149	708	54	247
4 families to a yard,	55	337	45	163
5 families to a yard,	128	556	50	153
6 families to a yard,	61	267	41	128
7 families to a yard,	39	175	7	25
8 families to a yard,	39	163	37	117
9 families to a yard,	24	120	8	33
10 families to a yard,	43	188	-	-
12 families to a yard,	3	13	-	-
15 families to a yard,	29	110	-	-
16 families to a yard,	12	44	-	-
20 families to a yard,	20	90	-	-
24 families to a yard,	20	81	-	-
26 families to a yard,	23	135	-	-
Not stated,	105	409	-	-
TOTALS,	882	3,913	307	1,301

In the North Section, out of 1,714 families canvassed, only 46 had independent yards, and in the South Section only 23 were thus supplied. The upper limit of the South was reached by eight families who were under conditions requiring the use of a single yard in connection with a nine-family tenement block. At the North, however, 23 families were found under conditions requiring the use of a single yard by 26 families; and a considerable number of other families were, with respect to yard accommodations, much less liberally supplied than in the South Section.

The facilities for disposing of the family washing are shown in the next table.

Facilities for Laundry Work.

SECTIONS.	SHED		LAUNDRY		ALLEY		PULLEY LINE		ROOF OF HOUSE	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section,	-	-	12	31	9	46	158	711	944	4,215
South Section,	170	775	6	21	-	-	56	195	47	192

Facilities for Laundry Work — Concluded.

SECTIONS.	ROOF OF SHED		ROOM		YARD		NOT GIVEN		TOTALS	
	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons	Families	Number of Persons
North Section,	374	1,702	48	219	162	746	7	21	1,714	7,691
South Section,	29	118	3	12	38	181	12	37	361	1,531

In the North Section, 1,714 families being canvassed, 12 make use of outside laundries, nine hang the washing in the "alley," 158 use a

pulley line running from the window, 944 use the roof of the house, 374 use the roof of the shed, 48 are obliged to dry the clothing within the tenement room, 162 use the yard, and in the case of seven families the information was not given.

At the South, 361 families being canvassed, 170 families have a shed for this purpose, six send the washing to a laundry, 56 use the pulley line from the window, 47 use the roof of the house, 29 the roof of the shed, three have no other place than a room forming a part of the tenement, 38 use the yard, and in 12 instances the information upon this point was not returned.

Accepting the results of the comparisons between 1898 and 1891 for each of the sections canvassed, the following conclusions appear:

A larger proportion of the tenement families are supplied with bath room privileges in the North Section than in 1891, and a smaller proportion in the South Section, due probably to an increase in the number of families without corresponding increase in the number of bath rooms. In each section the number of families without bath room conveniences is still lamentably large.

The proportion of tenement families supplied with water closets is larger in both sections than in 1891, thus reflecting the gradual abolition of the privy. This, of course, is an improvement.

In the North Section a smaller proportion of the tenement families have the use of yards, indicating a gradual occupation of yard space for building purposes.

The table which follows presents a classification of the stories of the tenement houses as regards families occupying the same in each of the sections canvassed.

CLASSIFICATION OF STORIES AS REGARDS FAMILIES OCCUPYING SAME.	Number of Families	Number of Persons
NORTH SECTION.		
All,	1,714	7,691
Basement,	29	178
Basement and first story,	21	89
Basement, first story, and attic,	6	31
Basement, first story, and attic,	1	7
First story,	372	1,503
First and second stories,	17	92
First and second stories, and attic,	2	21
First, second, and third stories,	9	68
First and third stories,	5	24
First and fourth stories,	1	2
Second story,	475	2,165
Second story and attic,	12	59
Second and third stories,	10	55
Second, third, and fourth stories,	2	22
Third story,	452	2,026
Third story and attic,	8	43
Third and fourth stories,	2	16
Fourth story,	229	1,065
Fourth and fifth stories,	1	5
Fifth story,	37	137
Attic,	19	63
Not stated,	4	20

CLASSIFICATION OF STORIES AS REGARDS FAMILIES OCCUPYING SAME.	Number of Families	Number of Persons
SOUTH SECTION.		
All,	361	1,531
Basement,	23	248
Basement and attic,	1	5
Basement and first story,	15	79
Basement, first story, and attic,	11	73
Basement, first and second stories, and attic,	3	21
Basement, first and third stories, and attic,	1	10
Basement and second story,	3	10
Basement, second story, and attic,	5	21
Basement, second and third stories, and attic,	1	9
First story,	43	193
First story and attic,	1	5
First and second stories,	3	31
First and second stories, and attic,	3	23
First, second, third, and fourth stories, and attic,	1	12
Second story,	79	291
Second story and attic,	11	51
Second and third stories,	1	3
Third story,	59	200
Third story and attic,	4	14
Third and fourth stories,	1	4
Fourth story,	22	87
Fifth story,	1	4
Attic,	37	76

The information contained in the preceding table does not require particular analysis. The salient lines show that in the North Section, out of the 1,714 families canvassed, 21 families resided in the basement, 372 in the first story, 475 in the second story, 452 in the third story, 229 in the fourth story, 37 in the fifth story, and 19 in attics, the other families using various stories in combination, as shown by the table.

In the South Section, out of the 361 families canvassed, 27 resided in the basement, 43 in the first story, 79 in the second story, 59 in the third story, 22 in the fourth story, one in the fifth story, and 37 in attics, the others appearing under various combinations.

Of the families canvassed in the North Section, it will be observed that 21 families were found in basement tenements and 19 in attic tenements. These included, respectively, 89 and 63 persons out of 7,691, the total population canvassed. In the South Section, there were 27 families residing in basement tenements and 37 in attic tenements. These comprised, respectively, 61 and 76 persons out of 1,531 the total population canvassed.

In reporting upon the tenement-house conditions of the city in 1891, we stated that the number of persons to a house, if ascertained, would be only superficially indicative of the amount of overcrowding. The statistical determination of the problem required a classification of the persons according to the number of tenements to a house.

We presented such a classification at that time, and similar tables have been given in the present article. But in 1891 we also stated that if we attempt to eliminate the strictly tenement-house population, as the

term is popularly used, from the total number of families found in rented premises, it is entirely proper to group the occupants of two-tenement houses with those occupying separate houses. The reasons for this statement, which need not be repeated here, were fully given in the report. We then said:

As a rule, however, when we reach the three-tenement house we enter the domains of the real tenement-house class. Not all three-tenement houses are open to serious objection; many of them, if built upon the "flat" arrangement, offer substantially the same advantages as two-tenement houses built on that plan. Nevertheless, after we pass the two-tenement grade and enter upon houses which contain three or more tenements, we have passed the point where any considerable degree of privacy remains possible in houses of the ordinary class. The houses containing a large number of tenements which appear in the tables are, in general, "flats" or apartment houses of a high grade. Any line which we may draw between the tenement house as popularly understood and the apartment house is exceedingly arbitrary. We shall not greatly err, however, if we draw it so as to include in the last named class all houses containing more than six tenements. It is, of course, true that houses containing more than six tenements may be found in the City which should be classed as tenements rather than as apartments. But it is nevertheless true that in Boston the majority of the tenement houses, so-called, may be found below the seven-tenement grade. We have drawn the lower boundary of the strictly tenement-house population so as to include the occupants of three tenements to a house and to exclude those living in houses containing a less number of tenements. If we draw the upper boundary so as to include the occupants of houses containing six tenements, and exclude those living in houses containing a greater number of tenements, we shall have in one group the population in houses containing three, four, five, and six tenements. Within these houses may be found by far the larger part of what would be called the strictly tenement-house population.

Applying the same method of classification to the figures obtained in the canvass of 1898 and putting them in comparison with the figures for 1891, we find that in the North Section in 1891 while 60.74 per cent of the families, including 58.13 per cent of the population residing in tenements, were found in the three, four, five, and six tenement houses aggregated; 58.52 per cent of the families, including 58.13 per cent of the persons residing in tenements, were living in houses of this class in 1898. The percentage as to families shows a decrease in 1898 as compared with 1891, while the percentage of persons in 1898 and 1891 is identical.

In the South Section, while 64.12 per cent of the families, including 59.01 per cent of the population residing in tenements, were found in three, four, five, and six tenement houses aggregated in 1891; the corresponding percentages for 1898 are, as to families, 57.62, and as to tenement-resident population, 51.27, a decrease in percentages as to families and persons in 1898.

Passing to a consideration of the number of rooms to a tenement, we remarked in 1891 that as related to the number of persons in a family, the following considerations should be borne in mind:

The average number of persons per family occupying rented tenements in the City at large is 4.35. That is to say, such families include on the average from four to five persons, possibly including the father, mother, and two or three children. A tene-

ment of five rooms enables such a family to have a kitchen, sitting-room, and three sleeping-rooms; or the tenement may, as is frequently the case, consist of a kitchen, dining-room, sitting-room (or parlor), and two sleeping-rooms. Under either arrangement such a family can readily be accommodated in a five-room tenement without serious crowding; one of the children, if there are three, being presumably young and sleeping, possibly, in the same room with the father and mother. If there are but two children, the five-room tenement is entirely adequate. If, however, there are but four rooms to the tenement and the family consists of five members, three being children, some crowding is likely to occur. Either the kitchen will be used as a general living room, leaving three sleeping-rooms, or the living room will be used as a sleeping-room also. The crowding will be less if the family consists of but four members; a father, mother, and two young children can manage quite well in such a tenement. A family of the size represented by the average figure, 4.35, should not, it is plain, occupy a tenement of less than four rooms.

We now insert the following table, which enables a comparison to be made of the figures for 1898 and 1891 with respect to the number of families having a specified number of rooms, and the average number of persons to a family in each of the sections canvassed:

SECTIONS AND SIZE OF TENEMENTS.	TENEMENT HOUSE CENSUS OF 1891			CANVASS OF 1898		
	Number of Families having Spec- ified Number of Rooms	Number of Persons	Average Number of Persons to a Family	Number of Families having Spec- ified Number of Rooms	Number of Persons	Average Number of Persons to a Family
NORTH SECTION.	2,020	8,993	4.45	1,714	7,691	4.49
1 room,	92	199	2.16	53	119	2.25
2 rooms,	551	1,859	3.37	436	1,538	3.53
3 rooms,	712	3,115	4.38	667	2,969	4.45
4 rooms,	394	2,033	5.16	360	1,863	5.18
5 rooms,	136	858	6.31	110	672	6.11
6 rooms,	69	427	6.19	42	249	5.93
7 rooms,	23	149	6.48	11	69	6.27
8 rooms,	18	144	8.00	9	58	6.44
9 rooms,	9	76	8.44	5	33	6.60
10 rooms,	7	62	8.86	5	26	5.20
11 rooms,	2	25	12.50	4	32	8.00
12 rooms,	4	28	7.00	2	14	7.00
14 rooms,	1	6	6.00	2	16	8.00
15 rooms,	1	7	7.00	1	11	11.00
16 rooms,	1	5	5.00	-	-	-
Not stated,	-	-	-	7	22	3.14
SOUTH SECTION.	432	1,637	3.79	361	1,531	4.24
1 room,	48	82	1.71	43	75	1.74
2 rooms,	105	247	2.35	77	213	2.77
3 rooms,	91	328	3.60	63	232	3.68
4 rooms,	86	346	4.02	59	372	4.18
5 rooms,	41	201	4.90	24	146	6.08
6 rooms,	25	127	5.08	16	76	4.75
7 rooms,	7	46	6.57	4	22	5.50
8 rooms,	8	60	7.50	12	87	7.25
9 rooms,	3	30	10.00	8	56	7.00
10 rooms,	6	53	8.83	11	99	9.00
11 rooms,	4	40	10.00	2	21	10.50
12 rooms,	2	15	7.50	2	21	10.50
13 rooms,	3	32	10.67	4	41	10.25
14 rooms,	1	8	8.00	3	15	5.00
16 rooms,	1	10	10.00	1	14	14.00
17 rooms,	1	12	12.00	2	41	20.50

It was found in 1891 that when the average was taken for the entire city, the number of persons to a family occupying tenements of four rooms was less than the normal average number of persons to a family. That is to say, families occupying tenements of this class averaged smaller than families in general. At the same time, the largest number of families was found in tenements of this sort. This was, on the whole, an encouraging fact.

In 1891, however, while the largest number of families in the North Section which was canvassed in 1898 were living in tenements of from one to four rooms, the average number of persons to a family in tenements of the four-room grade was 5.16, or considerably larger than for the city as a whole, and larger than the family which, as we have previously shown, could reside in a four-room tenement without crowding. The average in 1898 in tenements of this grade has been slightly increased and still remains too high.

In the South Section in 1891, the average number of persons to a family in tenements of the four-room grade was less than the average found for all the families in the city, but this average has been increased considerably in the canvass of 1898.

We pointed out in 1891, using the four-room and five-room tenements as an index of conditions, that whenever the average number of persons per family exceeded four for the four-room tenements and five for the five-room tenements, such families must be crowded. These averages were exceeded, it is true, in the North Section in 1891, and so far as relates to the four-room tenements, were also exceeded in the South Section. The canvass of 1898 shows that the average is still exceeded in both sections, having been slightly raised so far as relates to the four-room tenements in the North Section, and slightly lowered as to the five-room tenements; while in the South Section it has been raised with respect to tenements of both of these classes.

It may simplify the interpretation of the tables if we also repeat that, as pointed out in 1891, if the family contains more than two persons in a single-room tenement, there must be overcrowding. Hence, whenever the average number of persons per room for such tenements rises above two in the tables, overcrowding is indicated. A family of three persons in a tenement of three rooms would yield an average of one person per room; an average higher than this would indicate the probability of overcrowding, and the average was higher in each of the sections canvassed in 1891, and was also higher in 1898, having been slightly raised since 1891. In tenements above the six-room grade, it will be seen that so far as the North Section is concerned the average number of persons to a family was found to be less in several instances in 1898 than in 1891, but not so generally less in the South Section.

The territory designated as the North Section has, since the tenement house census of 1891, been improved by the creation of the so-called

North End Park, and by the renovation in whole or in part of some of the houses under the inspection of the Board of Health of the City. In other parts of the same ward, closely adjacent to this territory, some of the worst houses have been closed to habitation, materially improved, or demolished, by the action of the same authority. The gradual advance of business upon the residential buildings in both sections sometimes causes the removal of houses, but in some cases this may result in greater concentration within the buildings which remain.

QUARTERLY REVIEW OF EMPLOYMENT AND EARNINGS.

QUARTER ENDING JULY, 1899.

The regular quarterly summary of conditions affecting labor, employment, earnings, and cost of living, in the industrial centres of the Commonwealth, based upon special reports and comparisons made by agents of the Bureau, for the quarter ending July, 1899, follows:

BOSTON. In the building industry, operations have greatly increased since the first of April, and although the activity is in many cases confined to alterations and repairing, many concerns are still finding business better than at any time since the beginning of the year. There is a general feeling that the outlook is good for continued activity in the fall. There is much contemplated building not yet sufficiently advanced to make contracts. As compared with the late spring, the early summer months witnessed some decline in operations, but this is partly accounted for by the rapid advance in the cost of materials. No decline is reported as compared with the corresponding season in 1898, and many builders state that business for the quarter is considerably in advance of that during any three months of 1898. The wages of plasterers were advanced June 1 by reducing the number of hours of labor per day, the per diem compensation remaining unchanged. The cost of stock has increased generally since April from 10 to 15 per cent, increasing correspondingly the cost of work taken under contract since that time, and recent contracts run from 20 to 25 per cent higher than in December, 1898. Collections on job work have improved much since last year and are reported now to be very good. Employment has generally increased.

In Printing, Publishing, and Bookbinding, although the demand has dropped slightly since June 1, as is usual during the summer, it is still strong, and in certain branches has improved within recent weeks. Business has been generally excellent in the industry since the closing months of 1898. Rates of wages have not changed during the quarter. Certain

kinds of material have advanced in price since April 1, and the cost of type has also increased. Printers have been endeavoring to advance prices a little, with some success, but the increase is not considered sufficient to meet the increase in the price of stock, and therefore business is done upon a very close margin. Collections have improved very much since 1898. Establishments are running at their full capacity as a rule, although a few large concerns report an output not exceeding 90 per cent of full capacity. Nearly all the establishments are running on full time and some upon overtime.

In the brewing industry, business showed improvement beginning about May 1, usual under the demands of the season; but, in general, the output is said to be greater than for the corresponding season last year, and subject to less fluctuation. The rate of wages of employes has not changed. The cost of stock is practically the same as during the preceding quarter, but with a slightly upward tendency. Selling prices have not materially changed, but the market rules strong. Collections have improved, and are generally reported from fair to good. Breweries are all running on full time, and at from 50 per cent to full capacity. The output of the breweries in the District of Massachusetts for the quarter, which has been kindly supplied by the Collector of Internal Revenue, was as follows: Barrels of malt liquors produced during April, May, and June, 517,040; barrels produced during January, February, and March, 326,070. These figures show a gain of 190,970 barrels.

In the manufacture of temperance drinks, demand, owing to the season, has increased since April 1, but the industry shows practically the same conditions as in 1898. Wages have not materially changed. Employment has increased. The cost of certain articles of stock is higher, stock having advanced, upon the whole, 40 per cent during the last year. Selling prices of the product have not advanced since April. Collections are reported as from fair to slow. Business is done on a much closer margin of profit than formerly in this line, although the output is increasing.

In the clothing industry, business has slightly improved as compared with the preceding quarter or with the corresponding quarter in 1898. Increased employment and earnings are reported, although the rate of wages remains unchanged. The cost of raw materials has slightly increased, while selling prices have not changed. Establishments are running on full time, and nearly at full capacity. Collections are good.

In the manufacture of cooking, lighting, and heating apparatus, business shows a larger volume than during the preceding quarter, and while fewer persons were employed in the final week than in the week ending March 31, the amount paid in wages has increased. The rate remains unchanged. Cost of raw materials used in the production of lamps and gas fixtures has increased about 30 per cent, although the selling price of the product has advanced but 10 per cent. In the manufacture of kitchen utensils the increase in the cost of stock has been approximately 33 per

cent, while the selling value of the product has advanced but 25 per cent. Rates of wages remain unchanged. Collections are reported good.

In Machines and Machinery, manufacturers report advance orders which promise continued activity. Cost of stock has increased since April 1 approximately 20 per cent, while the advance in selling prices has not exceeded $12\frac{1}{2}$ per cent. Rates of wages remain unchanged, although the aggregate amount of earnings has increased, owing to enlarged employment. Establishments are running on full time and at full capacity. Collections are reported good.

In Metals and Metallic Goods also, business has improved. Cost of raw materials continues to increase, but has been so variable that it is difficult to make a summarized statement in percentages. It may be set approximately at 20 per cent, while the advance in the selling price of the product is not more than 10 per cent. Production in iron foundries shows perhaps the greatest increase in volume, but difficulty in obtaining a sufficient amount of raw material is reported.

In Musical Instruments and Materials, especially covering the manufacture of pianos, conditions remain substantially the same as during the preceding quarter, but are better than for the corresponding months in 1898. Lumber has increased in cost, but no better prices are obtained for the product in this industry. Rates of wages remain unchanged. Collections are reported to be good.

Firms in all the industries, which reported 5,980 persons on the rolls for the week ending March 31, report 6,519 for the final week of the quarter covered by the present review, an increase of 9.01 per cent. The payrolls for these numbers, respectively, rose from \$70,934 to \$76,171, an increase of 7.38 per cent.

BROCKTON. The quarter under consideration is a mid-season period in the boot and shoe industry here. Indications point to a good fall demand. Many concerns report a larger volume of orders for the spring season than was received during the whole of the year 1898, the excess in some cases running as high as 50 per cent. The spring sales were generally greatly in advance of those for the same season in 1898, but there is a strong feeling that better prices ought to be realized, as the margin of profit is exceedingly small. Rates of wages have not generally changed, although there are firms which report slight advances. The cost of stock has increased continuously. In certain lines of product advances in selling prices are reported, but this advance is not general. Collections have improved, and the outlook is favorable.

Owing to difference in seasons, the number of persons employed in the establishments reporting, the final week of this and the preceding quarter being compared, declined to the extent of 4.69 per cent, and the aggregate disbursements in wages declined 11.07 per cent.

CAMBRIDGE. In Metals and Metallic Goods, the demand exceeds that for the preceding quarter, and also that for the corresponding months

of 1898. Continued advance in raw materials is reported, and although the selling price of the product now shows an increase, it is not commensurate with the increase in the cost of stock. Although the rates of wages for piece work have not changed, yet the employés receive more money on account of increased employment. The establishments are running on full time and at full capacity. Collections are good.

In Machines and Machinery, increased demand is reported, both as compared with the first quarter of 1899 and with the corresponding months in 1898. The increase in the cost of raw materials elsewhere reported in this industry has, of course, been felt, and is generally placed at from 20 to 25 per cent, while the increase in the selling value of the product has not reached more than 15 per cent. Difficulty is reported in obtaining iron, and manufacturers state that if this were not the case more men could be employed. Larger numbers are employed than early in the year, with a corresponding increase in the volume of wages. Establishments are running on full time and nearly at full capacity. No change is reported in the rate of wages. Collections are said to be good.

Firms reporting for the final week of this and the preceding quarter show an increase in the number of persons carried on the rolls amounting to 11.05 per cent, and an increase in the wage disbursements of 5.94 per cent.

CHICOPEE. In the cotton industry, demand has increased during the last quarter, and although the cost of raw cotton has slightly advanced, there has also been a slight advance in the price of goods made. Slight increases in wages are reported, reaching in one case five per cent.

In the woollen knit goods industry, demand has increased, and also employment. The cost of stock has increased about 10 per cent, while selling prices remain unchanged, although an advance is expected. Rates of wages for piece work have not changed.

Establishments which reported 2,892 persons on the rolls for the final week of the preceding quarter, report 3,002 for the corresponding week in the quarter covered by the present report, an increase of 3.80 per cent. The payroll for each week, respectively, rose from \$17,676 to \$18,057, a gain of 2.16 per cent.

FALL RIVER. There has been a remarkable improvement in manufacturing conditions in Fall River since the beginning of the year. Mills which have made no profit for several years have resumed payment of dividends, with every indication that for some time to come conditions will warrant a continuance of such payments. Prices have increased and orders for future deliveries are active. In most lines, however, demand is somewhat restricted as compared with the earlier part of the season, but future prospects are good, and the output will undoubtedly be enlarged when the usual summer dulness has passed and the effect of fall orders is felt. Demand is now much beyond that of the corresponding season in 1898. For what are called "odds and fancies" demand is

practically the same as during April, and the mills are sold up to the limit of production. The spinning mills are running practically the same as in April, and generally at full capacity. Wages were advanced $12\frac{1}{2}$ per cent April 3 in the cloth mills to offset a reduction made early in 1898.

Comparing identical establishments for the final week of this and the preceding quarter, we note a gain in the number upon the rolls from 4,080 to 4,476, a gain of 9.71 per cent. The payrolls for these numbers, respectively, rose from \$25,668 to \$31,036, a gain of 20.91 per cent.

HAVERHILL. During the quarter under consideration, the shoe business has been fully as good as during the preceding three months, although the usual mid-season depression is now felt. The shipments have exceeded those for any corresponding period during the past 10 years. Advance orders indicate future activity, and the prospect seems good for the development of a considerable export trade. The demand for employment is already increasing. The cost of upper leather has advanced slightly since April 1; sole leather has also advanced; and, approximately, the increase in the cost of all stock will average five per cent. An increase in the selling price of product is also reported in some instances, but in other cases it is stated that, if unable to advance prices, manufacturers will be obliged to lower the grade of the product to offset the increased cost of stock. Slight increases in wages are reported to workmen upon turned work. Collections are good.

Firms employing 3,193 persons for the final week of the preceding quarter show a decline owing to the change of season to 2,836, or 11.18 per cent; the payroll for these persons dropping from \$32,482 to \$25,985, a decline of 20 per cent.

HOLYOKE. No material change is to be noted in the paper industry as compared with the first quarter of the year. Cost of stock has increased, including an advance of about eight per cent in miscellaneous supplies. Prices of product are but slightly changed. Manufacturers report that the only way to offset the increase in cost of stock is to secure a greater volume of production within the same number of hours. Wages have not changed in rates, but have increased in some cases in volume. Collections are good.

In the cotton industry, the demand remains practically the same as during the quarter ending March 31. There has been no change in the rate of wages, as the mills here did not reduce rates in 1898. In one of the mills a strike occurred during the week ending June 17, affecting a portion of the operatives, who resumed work again July 5 without change in the rate of wages.

In the production of cotton threads, yarns, and warps, demand has not materially increased. A slight increase is reported in the cost of stock, with a corresponding increase in the price of product. There are no changes in wages reported.

In the woollen industry, the demand is better than for the previous quarter. Cost of stock has increased about six per cent, while selling prices remain unchanged, but with a tendency to advance. Wages have not changed. The mills are now running full time and nearly at full capacity.

In the manufacture of alpaca goods, increased output is reported, and wages are reported as having increased about five per cent. These mills also are running full time.

Firms reporting 6,887 persons on the rolls for the week ending March 31, report for the final week of the quarter now under review 6,939, a gain of less than one per cent. The payrolls in each case were, respectively, \$51,716 and \$49,141.

LAWRENCE. In all branches of the cotton industry, demand during the season has been fully equal to that of last year, and in most lines enlarged demand is reported. The Spanish war led to an increased consumption of duck, and mills manufacturing this product have generally been running at full capacity for some months, to supply a depleted market. In certain lines seasonal considerations have caused slightly less demand than in the early months of the year. For awnings, tickings, sheetings, and shirtings, the demand for the quarter has been practically the same as for the preceding quarter, but has improved generally since 1898, and is still large. The demand for yarns is fully as good or better than in April, and the prospects for the future are favorable. Up to the close of the spring season demand in the worsted goods and woollen industry continued greater than in 1898. Wages in all lines remain the same as to rates, and the mills are running on full time and at full capacity. Collections are good and the general business situation is favorable.

The number of persons employed in the establishments reporting for the week ending March 31 was 16,657; the same establishments report 17,213 for the final week of the quarter now under review, a gain of 3.34 per cent. The weekly payrolls rose from \$123,296 to \$125,447, a gain of 1.74 per cent.

LOWELL. Continued improvement is shown in the cotton industry, and the mills are generally running full time and well up to full capacity. Cost of stock and selling prices of product have each advanced. Wages were increased April 1 about 10 per cent on the average, and aggregate earnings have generally increased owing to enlarged employment. The outlook is encouraging. In the cotton industry, a small local strike is reported on account of a disagreement as to wages, unsettled at the close of the quarter.

In the woollen and worsted industry, the demand is now better than for several years. The cost of wool has increased, but the selling value of the product remains unchanged at present. An increase in wages is reported in one of the large mills, averaging about eight per cent.

In Machines and Machinery, increased production and employment are noted, also increased earnings. Cost of stock has increased generally and selling prices are now rising, but have not advanced sufficiently to offset the increased cost of stock. Advance orders will apparently keep the establishments running on full time. In the manufacture of bobbins, increased output is reported. The rates of wages have increased about 10 per cent; the cost of materials has risen $12\frac{1}{2}$ per cent; and the selling price of the product has advanced 10 per cent. Demand is reported as being better than for many months.

Firms reporting for the final week of the preceding quarter and also for the final week of the quarter now under review show upon the rolls for each date, respectively, 16,650 and 16,982 persons, a gain of 1.99 per cent. The weekly payrolls were, respectively, \$116,920 and \$125,074, a gain of 6.97 per cent.

LYNN. The spring months are usually the best of the year here, the business activity declining in June. The past season has shown a marked improvement over conditions existing in 1898. The output has been larger in nearly every establishment. One firm reports that its sales for the three months preceding this review have, in the aggregate, amounted to 86 per cent of its entire output for 1898. Advance orders are large in most establishments, and the outlook for continued prosperity is good. Increasing production for export is noted. A few establishments report a slight increase in wages, but, in general, rates remain the same as at the date of our last Bulletin. Stock is firm at advanced prices, and has been continually advancing for some months. The output is also increasing in cost to the retailer and consumer. Collections are from fair to excellent, and generally satisfactory. Factories are running on full time, and at present, owing to the season, at from 50 per cent to full capacity. The preceding general statement applies to the establishments producing ladies', misses', youths', and children's boots, shoes, and slippers.

In the morocco industry, the months covered by the present review are usually dull, as demand materially slackens by the first of June; nevertheless, it still continues good for the season, and much better than for the corresponding months in 1898. For certain kinds demand during the past three months has been larger than during the preceding four years. For goat and calf morocco demand is still good, and there are increased inquiries for the better grades of goods. Wages have not changed since our preceding report. Selling prices have advanced to meet the increase in cost of stock. Collections are good on the average, although one firm reports them slow. Factories are running full time and at from 85 per cent to full capacity.

Owing to the difference in season, the number of persons employed is not so great as for the final week of the quarter ending March 31. Firms reporting for each week show a decline from 2,445 to 2,042, or

16.48 per cent; the weekly payroll for these persons dropping from \$23,348 to \$20,647, a loss of 11.57 per cent.

NEW BEDFORD. In the cotton industry, so far as relates to cloth mills, the months covered by the present report are between seasons. The demand, however, is well continued during the present year. The output is larger than for the same months in 1898, and the advance demand promises well. In the spinning mills also, demand is active for the season, and production keeps well up to the limit reached during the quarter ending March 31. Restorations of wages to offset the reduction in 1898 went into effect in April. The cost of stock has advanced, and selling prices have similarly increased. Collections are reported as good, and the mills are running on full time and at full capacity.

Establishments reporting 5,467 on the rolls for the week ending March 31, report for the corresponding week in the quarter now under review 5,612, a gain of 2.65 per cent; the weekly payrolls for these persons rising from \$35,285 to \$40,273, a gain of 14.14 per cent.

Peabody. In the morocco industry, the three months under review show an increased output over the same period in 1898, and, generally, over the previous three months. A few firms, however, report practically the same demand, both as compared with 1898 and with the first three months of the present year. In some lines, however, the output has been greater than for several years, and in some establishments has reached the highest recorded level. Slight advances in wages have been made in some instances, the increase in one establishment amounting to 8.50 per cent, and earnings generally have increased on account of the increased employment given the men. The cost of stock has advanced, and selling prices have stiffened correspondingly. Suitable skins are reported scarce and hard to obtain. Collections are good and have improved somewhat since spring. Nearly all the establishments are running on full time and at from 50 per cent to full capacity. Some firms report difficulty in obtaining a sufficient number of employés, and it is stated generally that all the available experienced workmen in the vicinity are fully employed.

In contrast to other branches of the industry, heavy upper leather shows no improvement since the first three months of the present year. Wages remain unchanged; stock and selling prices are slightly higher; collections are good; and the establishments although running on full time, are not operated to more than 50 per cent of their capacity.

In the manufacture of leather machinery, demand has continued to improve since the first months of the year; it is now much better than in 1898. Advances are reported in stock, and there has been no change in wages; selling prices also remain unchanged, the machinery manufactured here being generally, if not wholly, patented specialties. Some establishments have increased their facilities, hence, while running on full time, only 50 per cent of their present capacity is utilized. The outlook is favorable.

Firms reporting 1,210 persons on the rolls for the final week in the quarter ending March 31, returned 1,311 for the closing week of the quarter now under review, an increase of 8.35 per cent; the aggregate disbursement in wages for these numbers, respectively, rising from \$12,348 to \$12,909, a gain of 4.54 per cent.

WOBURN. An improvement is reported in the leather industry, resulting in enlarged wage disbursements, although the number employed has not materially changed. Manufacturers report that it is difficult to advance selling prices to compensate the increased cost of raw material. The demand for grain leather is good, while that for split leather has fallen off as compared with the preceding quarter. Rates of wages remain unchanged.

In the manufacture of stiffenings, heels, and inner soles, the demand does not seem quite up to that of the first three months of the year, due, no doubt, to the change in season; it is, however, better than for the corresponding months in 1898, and the outlook is encouraging.

The number of persons on the rolls for the final week in the quarter ending March 31 was shown to be 1,056, declining for the final week in the quarter now under review to 1,043. The aggregate weekly payroll for these persons, however, owing to enlarged employment, rose from \$9,421 to \$10,152, a gain of 7.76 per cent.

WORCESTER. In Metals and Metallic Goods, the output has increased, especially in the product of the foundries,—iron, brass, and bronze. These establishments are being run at their full capacity so far as they can obtain raw material. Stock has advanced in price, and also the selling price of product. Increases in wages paid to moulders and moulders' helpers are reported. One foundry which was in operation in April was closed at the end of the quarter now under review, owing to a strike on account of a disagreement respecting wages. Reports from manufacturers of machinery in the city indicate that it is difficult to obtain castings promptly, owing to the excess of orders in local foundries.

In the wire goods industry, output is steadily increasing and advance orders are large. As in other lines of metallic products, difficulty is reported in obtaining raw material fast enough to meet the demand. Establishments are running full time and overtime. Generally, the cost of stock has increased, and increases are also reported in the selling price of product.

In Machines and Machinery, the output continues large and greater than during the corresponding months in 1898. The cost of materials has increased, however, to a greater extent than the increase in the selling price of product. Wages have advanced in some instances fully 10 per cent. Firms manufacturing machine tools, knives, and shears report that business is not quite so good in these lines as during the preceding quarter. The fact that manufacturers are unable to advance the selling value

of their product in proportion to the increase in the cost of stock, and the difficulty in competing with some of the larger establishments in the industry, are given as reasons for the conditions reported.

In the satinete industry, improvement is reported and demand is better than during the first three months of the year.

Considerable improvement is to be noted in the building industry. The cost of materials has, of course, advanced, but prices under recent contracts have been correspondingly increased. Wages remain unchanged.

Collections in all industries are reported as good, and it is generally stated that industrial affairs in the city are in much better condition than for several years.

Firms reporting 5,616 persons on the rolls for the week ending March 31, report 6,728 for the week closing the quarter now under review, an increase of 19.80 per cent. The weekly payrolls in each case rose from \$59,087 to \$69,285, an advance of 17.26 per cent.

To summarize, the reports by industries indicate a decline in the number of persons employed for the last week in the quarter under review as compared with the last week of the preceding quarter, in the following industries: Boots and Shoes, including Soles, Heels, and Cut Stock; Cooking, Lighting, and Heating Apparatus; Printing, Publishing, and Bookbinding; and Print Works, Dye Works, and Bleacheries. In every case this is due to the mid-season depression usual in the industries named. The weekly payrolls also show a decline in Boots and Shoes, including Soles, Heels, and Cut Stock and Printing, Publishing, and Bookbinding; and a decline is reported in aggregate earnings for the weeks compared in Musical Instruments and Materials, and Paper; but conditions in the industries named, if compared with corresponding months in 1898, show improvement both in earnings and employment.

The following industries show increased numbers employed, the final week of the first and second quarters of 1899 being compared: Building; Clothing; Cotton Goods; Leather; Liquors and Beverages (not spirituous); Liquors: Malt, Distilled, and Fermented; Machines and Machinery; Metals and Metallic Goods; Musical Instruments and Materials; Paper; Woollen Goods; and Worsted Goods. All of these industries also show an increase in the weekly payrolls except Musical Instruments and Materials, and Paper, which show a decline.

In the aggregate, establishments which were canvassed in the different industries named show a gain in the comparison of persons employed from 73,242 to 75,817, or 3.52 per cent. The weekly payrolls for these employes rose from \$591,234 to \$616,438, an increase of 4.26 per cent.

It should be borne in mind that our last Bulletin showed an increase for the final week of the first quarter of the year as compared with the week ending December 31, 1898, of 4.06 per cent in numbers and 7.76 per cent in earnings. Notwithstanding seasonal depressions in certain

industries, therefore, the gain has been continuous in both respects since the beginning of the year.

By cities, a comparison of the final week in the quarter now under review and the corresponding week in the previous quarter shows a larger number employed in Boston, Cambridge, Chicopee, Fall River, Holyoke, Lawrence, Lowell, New Bedford, Peabody, and Worcester; and, in the cities compared, diminished employment due entirely to usual seasonal conditions, in Brockton, Haverhill, Lynn, and Woburn. The weekly payrolls for the persons reported show a decline in Brockton, Haverhill, Holyoke, and Lynn, and an increase elsewhere.

It should be noted in connection with the returns relative to employment and earnings, that in a considerable number of cases the particular week selected for comparison at the close of the quarter under review is reported as being a short time week in comparison with the usual running time of the establishment. Notwithstanding this, however, increases are reported in the aggregate, and in nearly all the industries considered separately.

Cost of Living. The following table gives retail prices of certain standard articles of food in Boston, month by month, for the quarter. Quotations in other cities vary but slightly for the articles named, in some cases being lower and in others higher. Such changes as appear are slight and due mainly to differences of season. Lamb is higher at the end than at the beginning of the quarter; butter and eggs slightly lower. Codfish, lobsters, and other seasonal kinds of fish not quoted in the table are lower. Chickens higher, fowl lower, geese and ducks higher. The usual summer vegetables and berries not quoted are fairly abundant at reasonable prices.

Retail Prices, Standard Articles, Boston Market, 1899.

ARTICLES.	March 31	May 1	June 1	June 30
Beef, lb. sirloin steak . . . . .	.25 @ .23	.25 @ .28	.25 @ .23	.25 @ .23
rump steak . . . . .	.25 @ .30	.28 @ .30	.28 @ .30	.28 @ .30
rib roast . . . . .	.12 @ .20	.12 @ .20	.12 @ .20	.12 @ .20
chucks . . . . .	.07 @ .10	.08 @ .10	.08 @ .12	.08 @ .12
corned, fancy brisket . . . . .	.10	.10	.10	.10
corned, ordinary . . . . .	.05 @ .08	.06 @ .10	.06 @ .10	.06 @ .10
Lamb, lb. hind quarter . . . . .	.14	.15	.15	.15
fore quarter . . . . .	.08	.09	.09	.09
side . . . . .	.11	.12½	.13	.20
short chops . . . . .	.20 @ .25	.25	.25	.25
Mutton, lb. hind quarter . . . . .	.12½	.12½	.13	.12
fore quarter . . . . .	.06	.07	.08	.07
whole . . . . .	.09	.10	.10	.10
'short chops . . . . .	.20	.20	.25	.25
Tripe, lb. . . . .	.08	.08	.08	.08
Ham, lb. . . . .	.09 @ .10	.10	.10 @ .11	.11 @ .12
Bacon, lb. . . . .	.10	.11	.10	.10

Retail Prices, Standard Articles, Boston Market, 1899 — Concluded.

ARTICLES.	March 31	May 1	June 1	June 30
Pork, lb. fresh . . . . .	.09 @ .10	.10	.09 @ .10	.09 @ .10
salt . . . . .	.08	.08	.08	.08
corned shoulder . . . . .	.07	.07	.07	.07
smoked shoulder . . . . .	.07	.08	.07	.08
smoked rib . . . . .	.08	.08	.08	.08
pigs' feet . . . . .	.08	.08	.08	.08
Sausages, lb. ordinary . . . . .	.10	.10	.10	.10
Bologna . . . . .	.10	.10	.10	.10
Frankfort . . . . .	.10	.10	.10	.10
Lard, lb. . . . .	.08	.08	.08	.08
Butter, lb. best creamery . . . . .	.25	.23	.23	.23
good creamery . . . . .	.22	.20 @ .21	.20	.20
dairy . . . . .	.20	.20	.18	.18
Cheese, lb. best domestic . . . . .	.15	.15	.15	.15
ordinary . . . . .	.12	.12½	.12	.12
Eggs, dozen, fresh . . . . .	.16 @ .18	.18	.18	.18
case . . . . .	.20 @ .22	.20	.20	.20
suburban . . . . .	.23 @ .25	.22	.22	.22
Fish, lb. cod, fresh . . . . .	.10	.08	.08	.08
cod, salt . . . . .	.10	.10	-	-
haddock . . . . .	.10	.08	.08	.08
halibut, fresh . . . . .	.25	.25	.20	.25
halibut, smoked . . . . .	.20	.20	.20	.20
Lobsters, lb. boiled . . . . .	.25	.18	.20	.22
Clams, qt. . . . .	.20	.20	.20	.20
Turkey, lb. medium quality . . . . .	.20	.20	.18 @ .20	.20
Chickens, lb. native . . . . .	.25	.30	.30	.30 @ .38
good . . . . .	.20	.20	.20	.20 @ .25
Fowl, lb. . . . .	.16	.16½	.16	.15
Geese, lb. . . . .	.22	.20	.40*	.30*
Ducks, lb. . . . .	.20	.18	.22	.20 @ .22
Potatoes, pk. white (old) . . . . .	.25	.30	.25	.30
white (new)	-	.75	.60	.40
Onions, qt. . . . .	.05	.08	.05	.05
Cabbage, head . . . . .	.10	.10	.10	.10
Apples, pk. . . . .	.50	-	1.00	.60

* Green Geese.

LABOR BULLETIN

OF THE COMMONWEALTH OF

MASSACHUSETTS.

No. 12.

OCTOBER.

1899.

CHAPTER 290, ACTS OF 1895.

For the purpose of disseminating information from time to time respecting the state of employment, and other information relative to industrial conditions, the bureau of statistics of labor is authorized to distribute a bulletin, at such regular intervals as it may deem advisable, to be printed by the state printers.

Prepared and Edited by the Bureau of Statistics of Labor.

HORACE G. WADLIN, *Chief.* CHAS. F. PIDGIN, *First Clerk.* FRANK H. DROWN, *Second Clerk.*

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MASSACHUSETTS LABOR BULLETIN.

No. 12.

OCTOBER.

1899.

A STUDY OF CHARITY STATISTICS.

The statistics which form the basis of this article are derived from a careful notation of the conditions appertaining to 2,636 families of different classes, within the districts covered by the friendly visitors of the Associated Charities of Boston. By the co-operation of Miss Zilpha D. Smith, General Secretary, the original schedules, all purely personal references having been omitted, were given to the Bureau for tabulation. Although the results, if considered independently, may be somewhat fragmentary, nevertheless, as they are drawn from intimate personal knowledge of the different families, they have their place and are of value as contributions to the data which are gradually accumulating in American cities in connection with the systematic study of the important problems of charity relief. From that point of view they are here presented.

The analytical text which accompanies the tables is not intended to do more than explain the figures, and point out the more important lines.

Classification of Families.

The 2,636 families covered by the statistics are separated into two classes, namely, 1,000 visited for two years or more, and therefore known to the District Conferences for that length of time, and 1,636 which were new to the district visitors during the year ending May 31, 1899. The 1,636 so-called new families were also subdivided into two sections, one numbering 894 families absolutely not known to have received charity before June 1, 1898; and the others numbering 742 which, although new to the district workers who collected the statistical data, had at some time prior to the year under consideration been known to charity. The general statistics relating to the two principal classes and to the two subclasses are presented separately in each table of the series which follows so that they may be conveniently compared.

Conjugal Condition of Families.

The first table of the series considers the heads of families with respect to conjugal condition or status allied thereto.

CLASSIFICATION.	FAMILIES NOT NEW THIS YEAR		FAMILIES NEW TO THE DISTRICT CONFERENCES DURING THE YEAR ENDING May 31, 1899					
	IN CARE OF A FRIENDLY VISITOR TWO YEARS OR MORE		KNOWN TO CHARITY BEFORE June 1, 1898		NOT KNOWN TO ANY CHARITY BEFORE June 1, 1898		TOTAL FAMILIES NEW TO THE DISTRICT CONFERENCES THIS YEAR	
	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages
Married couples,	585	58.50	409	55.12	505	56.49	914	55.87
Widows,	279	27.90	186	25.07	151	16.89	337	20.60
Women divorced or separated (legally),	5	0.50	3	0.40	4	0.45	7	0.43
Deserted wives,	70	7.00	66	8.90	91	10.18	157	9.59
Single women,	29	2.90	29	3.91	61	6.82	90	5.50
Widowers,	16	1.60	25	3.37	22	2.46	47	2.87
Single men,	5	0.50	7	0.94	36	4.03	43	2.63
Orphaned or abandoned children,	7	0.70	4	0.54	2	0.22	6	0.37
Miscellaneous,	4	0.40	13	1.75	22	2.46	35	2.14
TOTAL NUMBER OF FAMILIES,	1,000	100.00	742	100.00	894	100.00	1,636	100.00

Of the heads of the families not new, that is, as previously explained, which were in care of a friendly visitor for two years or more, 585, or 58.50 per cent of the 1,000 families in this class, were married couples, and 279, or 27.90 per cent, were widows. These two groups therefore constitute 86.40 per cent of the whole number. Of the heads of the 1,636 families new to the District Conferences during the year ending May 31, 1899, there were 914 married couples (55.87 per cent of the total), and 337 widows (20.60 per cent). The heads of the 1,000 families not new, included five divorced women, 70 deserted wives, 29 single women, 16 widowers, five single men, seven orphaned or abandoned children, besides four families not properly belonging under any of the classes named, and grouped under the head of miscellaneous in the table. On the other hand, the heads of the 1,636 families new to the visitors included seven divorced women, 157 deserted wives, 90 single women, 47 widowers, 43 single men, six orphaned or abandoned children, and 35 designated as miscellaneous.

The proportions of families having heads under the different designations in the two classes do not greatly vary, although the married couples and widows each form a somewhat higher percentage of the old cases than of the new, while the percentages of deserted wives, single women, widowers, and single men are larger in the new families than in the old.

Of the heads of the families comprising the 742 recurrent cases which, although known to charity prior to June 1, 1898, were new to the district visitors who compiled the statistics, and therefore included among the

1,636 so-called new cases, 409, or 55.12 per cent, were married couples; and 186, or 25.07 per cent, widows. The percentage of married couples is practically the same as that shown when all the new cases are considered, while the percentage of widows in these recurrent cases is larger than is shown when the new cases are considered in the aggregate, and approaches that shown in the 1,000 old cases. The other recurrent cases include three families having heads who were divorced women; 66, deserted wives; 29, single women; 25, widowers; seven, single men; four, orphaned or abandoned children; and 13, miscellaneous.

The differences in the proportions of families having heads of the various designations, in the different classes, are apparently not so great as to disturb or vitiate the comparisons which are hereinafter made between the classes with respect to causes of distress, or as to other points.

Classification of Ages.

The next table presents the statistics of ages of the members of the families, classified in specified groups.

CLASSIFICATION OF AGE PERIODS.	FAMILIES NOT NEW THIS YEAR		FAMILIES NEW TO THE DISTRICT CONFERENCES DURING THE YEAR ENDING May 31, 1899					
	IN CARE OF A FRIENDLY VISITOR TWO YEARS OR MORE		KNOWN TO CHAR- ITY BEFORE June 1, 1898		NOT KNOWN TO ANY CHARITY BEFORE June 1, 1898		TOTAL FAMILIES NEW TO THE DIS- TRICT CONFER- ENCES THIS YEAR	
	Number of Persons	Percent- ages	Number of Persons	Percent- ages	Number of Persons	Percent- ages	Number of Persons	Percent- ages
Under 14 years,	2,431	52.17	1,308	44.75	1,424	45.21	2,732	44.98
14 to 20 years,	439	9.42	289	9.89	211	6.70	500	8.23
20 to 40 years,	1,097	23.54	748	25.59	1,038	32.95	1,786	29.41
40 to 55 years,	454	9.74	359	12.28	315	10.00	674	11.10
55 to 70 years,	159	3.41	144	4.93	120	3.81	264	4.35
70 years and over,	80	1.72	75	2.56	42	1.33	117	1.93
TOTAL NUMBER OF PERSONS,	4,660	100.00	2,923	100.00	3,150	100.00	6,073	100.00

The 1,000 families in care of a friendly visitor for two years or more included 4,660 persons, of whom 2,431, or 52.17 per cent, were under 14 years; 439, or 9.42 per cent, 14 to 20 years; 1,097, or 23.54 per cent, 20 to 40 years; 454, or 9.74 per cent, 40 to 55 years; 159, or 3.41 per cent, 55 to 70 years; and 80, or 1.72 per cent, 70 years of age and over.

The 1,636 new families comprised 6,073 persons, including 2,732, or 44.98 per cent, under 14 years; 500, or 8.23 per cent, 14 to 20 years; 1,786, or 29.41 per cent, 20 to 40 years; 674, or 11.10 per cent, 40 to 55 years; 264, or 4.35 per cent, 55 to 70 years; and 117, or 1.93 per cent, 70 years of age and over. The differences in the proportions in the two classes of families can be readily seen, a considerably larger proportion of the members of the old than of the new families being under 14 years of age.

The recurrent cases among the so-called new families include 2,923 persons, of whom 1,308, or 44.75 per cent, were under 14 years; 289, or 9.89 per cent, 14 to 20 years; 748, or 25.59 per cent, 20 to 40 years; 359, or 12.28 per cent, 40 to 55 years; 144, or 4.93 per cent, 55 to 70 years; and 75, or 2.56 per cent, 70 years of age and over. These percentages approximate those found in the new cases considered in the aggregate.

Number of Rooms Occupied.

The next table presents for a certain number of the new families information as to the number of rooms occupied, with averages for the family and by persons, which will enable the reader to judge of the extent of crowding among those to whom the statistics refer. No information as to rooms has been tabulated with respect to the 1,000 families in care of friendly visitors two years or more, as in such cases the facts could not be given as of a single date.

NUMBER OF PERSONS TO A FAMILY.	NUMBER OF FAMILIES OCCUPYING SPECIFIED NUMBER OF ROOMS									
	½ of a Room	¾ of a Room	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms
1 person, . . .	13	1	229	19	14	2	-	-	-	-
2 persons, . . .	3	1	113	65	38	20	4	1	-	-
3 persons, . . .	2	1	84	66	51	39	5	1	1	2
4 persons, . . .	1	-	36	67	80	43	13	2	1	1
5 persons, . . .	-	-	19	43	65	37	11	4	2	1
6 persons, . . .	-	-	4	19	50	23	17	1	1	-
7 persons, . . .	-	-	-	10	40	23	11	1	1	4
8 persons, . . .	-	-	-	1	15	17	9	1	1	1
9 persons, . . .	-	-	-	1	5	8	6	1	2	2
10 persons, . . .	-	-	-	1	-	3	1	-	2	-
11 persons, . . .	-	-	-	-	-	2	3	-	-	-
TOTALS, . . .	19	3	485	292	358	217	80	12	11	11

NUMBER OF PERSONS TO A FAMILY.	NUMBER OF FAMILIES OCCUPYING SPECIFIED NUMBER OF ROOMS			Number of Families for which Rooms were reported	Total Number of Persons in Families reporting Rooms	ROOMS OCCUPIED		Average Number of Persons to a Room
	9 Rooms	11 Rooms	Un- known			Total Number	Average Number per Family	
1 person, . . .	-	-	16	278	278	324½	1.17	0.86
2 persons, . . .	-	-	23	245	490	465½	1.90	1.05
3 persons, . . .	-	-	21	252	756	580¾	2.30	1.30
4 persons, . . .	-	-	11	244	976	674½	2.76	1.45
5 persons, . . .	-	-	27	182	910	549	3.02	1.66
6 persons, . . .	1	-	16	116	696	391	3.37	1.78
7 persons, . . .	-	-	16	90	630	332	3.69	1.90
8 persons, . . .	-	-	7	45	360	181	4.02	1.99
9 persons, . . .	-	-	2	25	225	115	4.60	1.96
10 persons, . . .	-	1	1	8	80	44	5.50	1.82
11 persons, . . .	-	-	1	5	55	23	4.60	2.39
TOTALS, . . .	1	1	146	1,490	5,456	3,679½	2.47	1.48

The facts as to rooms occupied are given in the table for 1,490 families, including 5,456 persons. The total number of rooms occupied is 3,679½, and the average number per family 2.47. This average is said to show a slight but encouraging increase over the earlier years within the experience of the visitors. The average number of persons to a room is 1.48. In 22 reported cases the family as classified is credited with less than one room. Of these, the so-called family is, however, composed of but one person in 14 instances, of two persons in four, and of three persons in three instances, while in a single instance four persons are credited with one-half of a room. The apportionment of part of a room, as indicated by these figures, means either that the room is shared with someone, who may not be in distress, or that some family hiring several rooms has temporarily sheltered members of another family, crowding them into a room already partly occupied. The number of families occupying but a single room is 485, and of these, 229 are single-person families. On the other hand, there were 84 families of three persons, 36 of four, 19 of five, and four of six, each occupying but a single room.

In other instances there appeared evidences of extreme crowding, and in several cases where more than one room was occupied the families were so large as to bring the average number of persons per room above the normal. These conditions cannot fail to affect the sanitation of the tenements, and it is not surprising to find that sickness, as will hereinafter appear, is one of the leading causes of distress.

Illiteracy.

The degree of illiteracy of the heads of the families is exhibited in the next table.

EDUCATION OF HEADS OF FAMILIES.	FAMILIES NOT NEW THIS YEAR		FAMILIES NEW TO THE DISTRICT CONFERENCES DURING THE YEAR ENDING May 31, 1899					
	IN CARE OF A FRIENDLY VISITOR TWO YEARS OR MORE		KNOWN TO CHARITY BEFORE June 1, 1898		NOT KNOWN TO ANY CHARITY BEFORE June 1, 1898		TOTAL FAMILIES NEW TO THE DISTRICT CONFERENCES THIS YEAR	
	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages
Can read and write, . . .	713½	71.35	552½	74.46	705½	78.91	1,258	76.89
Can read, not write, . . .	30½	3.05	18	2.42	13	1.45	31	1.89
Cannot read or write, . . .	122	12.20	88½	11.93	102½	11.47	191	11.68
Unknown,	134	13.40	83	11.19	73	8.17	156	9.54
TOTAL NUMBER OF FAMILIES,	1,000	100.00	742	100.00	894	100.00	1,636	100.00

Of the heads of the 1,000 families in care of visitors two years or more, 713½, or 71.35 per cent, could read and write. The fraction indicates that some of the families having more than one head reported a different degree of literacy or illiteracy for each head, thus dividing the unit for the family. There were 30½ families wherein the heads could read but not write, the fraction being accounted for in manner as previ-

ously explained. Of the heads of the 1,636 families new to the District Conferences during the year, 1,258, or 76.89 per cent, a slightly higher proportion than in the other class, could read and write, and 31 could read but not write. The number of illiterate heads in either class measured by the inability to read or write, was comparatively small, being 122 (12.20 per cent) in the families not new, and 191 (11.68 per cent) in the new families. About the same percentage of illiterates is found in the group of 742 recurrent cases included among the new families.

Nativity of Heads of Families.

The effect which immigration has had in enlarging the number of charity cases may be seen from the statistics showing the place of birth of the heads of the families. These are next presented.

PLACE OF BIRTH.	FAMILIES NOT NEW THIS YEAR		FAMILIES NEW TO THE DISTRICT CONFERENCES DURING THE YEAR ENDING May 31, 1899					
	IN CARE OF A FRIENDLY VISITOR TWO YEARS OR MORE		KNOWN TO CHARITY BEFORE June 1, 1898		NOT KNOWN TO ANY CHARITY BEFORE June 1, 1898		TOTAL FAMILIES NEW TO THE DISTRICT CONFERENCES THIS YEAR	
	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages
NATIVE BORN.	277½	27.75	271	36.53	334½	37.41	605½	37.01
United States,	277½	27.75	271	36.53	334½	37.41	605½	37.01
White, both parents native,	132½	13.25	147½	19.88	207½	23.21	355	21.70
White, one or both parents foreign,	119½	11.95	89	12.00	89½	10.01	178½	10.91
Colored,	25½	2.55	34½	4.65	37½	4.19	72	4.40
FOREIGN BORN.	713½	71.35	468	63.07	550½	61.58	1,018½	62.26
British America,	100½	10.05	98	13.21	112	12.53	210	12.84
Great Britain,	459	45.90	283	38.14	252	28.19	535	32.70
England and Wales,	50½	5.05	51	6.87	57	6.38	108	6.60
Scotland,	15	1.50	14	1.89	19½	2.18	33½	2.05
Ireland,	393½	39.35	218	29.38	175½	19.63	393½	24.05
Bohemia and Hungary,	3	0.30	2	0.27	-	-	2	0.12
France and Belgium,	10	1.00	5	0.67	2½	0.28	7½	0.46
Germany,	21	2.10	16	2.16	17½	1.96	33½	2.05
Italy,	57	5.70	24	3.23	81	9.06	105	6.42
Russia and Poland,	17½	1.75	22	2.97	40	4.47	62	3.79
Scandinavia,	21	2.10	7	0.94	12	1.34	19	1.16
Other Countries,	24½	2.45	11	1.48	33½	3.75	44½	2.72
Unknown,	9	0.90	3	0.40	9	1.01	12	0.73
AGGREGATES.	1,000	100.00	742	100.00	894	100.00	1,636	100.00
Native born,	277½	27.75	271	36.53	334½	37.41	605½	37.01
Foreign born,	713½	71.35	468	63.07	550½	61.58	1,018½	62.26
Unknown,	9	0.90	3	0.40	9	1.01	12	0.73

Of the families in care of a visitor for two years or more, 277½ have heads born in the United States, the fraction in this as in other instances denoting that in some families having more than one head, the heads were not of the same nativity, and were therefore included under different designations as to country of birth, thus dividing the unit for the family. On the other hand, 713½ families in this class had foreign born heads.

The families with native born heads constituted 27.75 per cent, and those with foreign born heads 71.35 per cent of the total number of families in this class.

Of the families new to the District Conferences during the year, 605½, or 37.01 per cent, had native born heads, and 1,018½, or 62.26 per cent, foreign born heads. About the same proportions of native and foreign born heads are found in the recurrent cases included in this class, as appear in the class as a whole, the percentages being, respectively, 36.53 and 63.07.

Among the foreign born heads in the families not new to the Conferences, the heads of Irish nativity form the largest percentage, namely, 39.35, as against a percentage of 24.05 Irish born in the families new to the Conferences during the year. This last-quoted percentage is said to show a material decline in the proportion of heads of this nativity when compared with the new cases of previous years, and it is suggested that it may possibly indicate a migration into the suburbs of the city, or that the proportion of cases of the second or third generation, necessarily counted as native born, may have increased. It is undoubtedly true that the character of the crowded sections of the older part of the city is rapidly changing as to nationality, the proportion of persons Irish born declining, and that of other nationalities, swelled by recent accessions, correspondingly increasing.

Thus, in the table, the percentage of heads born in Italy in the so-called old cases is 5.70, as against 6.42 in the new; and this percentage, 6.42, shows an increase in heads of this nativity as compared with the new cases in previous years. Of the recurrent cases among the new families the percentage having heads born in Italy is but 3.23. The heads born in Russia and Poland represent 1.75 per cent among the old families, and 3.79 among the new. It may be stated that heads of this nativity among the new families increased from 1.4 to 3.5 per cent from 1890 to 1893, but do not show any material increase when the figures for 1893 are compared with those given for the new cases in the preceding table.

In comparing the relative position of the nationalities given in the table, the proportions of all persons of the same nativities in the population of the city, as a whole, may be considered. By the latest Census the native born, without regard to parent nativity, constituted 63.60 per cent of the total, the percentages of persons born in various foreign countries being as follows: Ireland, 14.40; British America, 8.89; Great Britain, 3.68; Germany, 2.19; Italy, 1.58; Russia and Poland combined, 2.65. It would not necessarily hold true that when the whole population is considered the percentages of heads of families, upon which the charity figures are based, would be the same as the percentages of all persons, of any given nativity.

Causes of Distress.

The causes of distress are shown in the following table:

CLASSIFICATION OF CAUSES OF DISTRESS.		FAMILIES NOT NEW THIS YEAR			
		IN CARE OF A FRIENDLY VISITOR TWO YEARS OR MORE			
		Chief	Percent-ages	Subsidiary	Percent-ages
1	WITHIN THE FAMILY.	890	89.00	-	-
2	Disregard of family ties,	57	5.70	50	5.00
3	Intemperance,	293	29.30	75	7.50
4	Licentiousness,	33	3.30	17	1.70
5	Dishonesty, or other moral defects,	22	2.20	30	3.00
6	Lack of thrift, industry, or judgment,	108	10.80	195	19.50
7	Physical or mental defects,	44	4.40	34	3.40
8	Sickness, accident, or death,	333	33.30	247	24.70
9	OUTSIDE THE FAMILY.	96	9.60	-	-
10	Lack of employment, not due to employé,	90	9.00	101	10.10
11	Defective sanitation,	-	-	4	0.40
12	Degrading surroundings,	1	0.10	15	1.50
13	Unwise philanthropy,	1	0.10	23	2.30
14	Public calamity,	1	0.10	-	-
15	Persecution in own country,	3	0.30	-	-
16	Volunteer service in U. S. army,*	-	-	-	-
17	Lack of training for work,	14	1.40	34	3.40
18	Number of families having causes classified,	1,000	100.00	-	-
19	Number of families having causes unclassified,	-	-	-	-
20	TOTAL NUMBER OF FAMILIES,	1,000	-	-	-

* War with Spain.

The causes of distress are presented in two principal groups, the first including causes within the family and the second those outside the family. The Secretary of the Associated Charities remarks:

We have more to say upon "causes within the family, which are mainly individual and personal, than upon those outside, which are mainly social."—"In dealing with individuals, their character is apt to be more studied than their environment." It is also true that an observer may be confident that bad sanitary conditions or low places of amusement or the want of manual training are potent causes of the depression of many families in his district, and yet be unable to trace in an individual case of distress, the direct influence of these larger social causes. The marked tendency shown in the table to find more subsidiary causes* on fuller knowledge or longer acquaintance indicates how complex the problem of a human life is, even when at first sight it seems only that of food, shelter, and clothing.

An inspection of the figures contained in the table shows that as to the families not new to the Conferences, which have been in the care of a

* It is obvious, of course, that in specifying the number of families for which subsidiary causes of distress are reported, there are frequently cases in which more than one subsidiary cause affected the family. Therefore, the total number of instances of subsidiary causes reported is necessarily larger than the number of families for which they are reported; and while there were, as shown in the table, 50 families out of the 1,000, in care of a visitor for two years or more, in which disregard of family ties was a subsidiary cause, 75 in which intemperance was a subsidiary cause, and so on, these include duplications of families in which the different causes co-existed, and do not represent the specified number of different families.

On the other hand, since there can be but one chief cause of distress in any family, the number of families and the number of instances of chief causes reported must always be identical. This explanation applies to all the tables relating to causes of distress.

FAMILIES NEW TO THE DISTRICT CONFERENCES DURING THE YEAR ENDING May 31, 1899											
KNOWN TO CHARITY BEFORE June 1, 1898				NOT KNOWN TO ANY CHARITY BEFORE June 1, 1898				TOTAL FAMILIES NEW TO THE DISTRICT CONFERENCES THIS YEAR			
Chief	Percent- ages	Sub- sidiary	Percent- ages	Chief	Percent- ages	Sub- sidiary	Percent- ages	Chief	Percent- ages	Sub- sidiary	Percent- ages
658	90.14	-	-	759	86.74	-	-	1,417	88.29	-	-
53	7.26	45	6.16	68	7.77	57	6.51	121	7.54	102	6.36
201	27.53	65	8.90	135	15.43	62	7.09	336	20.94	127	7.91
23	3.84	32	4.38	55	6.28	17	1.94	83	5.17	49	3.05
20	2.74	48	6.58	46	5.26	29	3.31	66	4.11	77	4.80
139	19.04	108	14.79	143	16.34	104	11.89	282	17.57	212	13.21
30	4.11	34	4.66	42	4.80	19	2.17	72	4.49	53	3.30
187	25.62	144	19.73	270	30.86	130	14.86	457	28.47	274	17.07
67	9.18	-	-	111	12.69	-	-	178	11.09	-	-
56	7.67	46	6.30	94	10.74	86	9.83	150	9.34	132	8.22
1	0.13	1	0.13	1	0.12	1	0.12	2	0.13	2	0.13
2	0.23	5	0.68	-	-	23	2.63	2	0.13	28	1.74
2	0.28	29	3.97	2	0.23	6	0.69	4	0.25	35	2.18
-	-	-	-	1	0.12	1	0.12	1	0.06	1	0.06
3	0.41	-	-	2	0.23	-	-	5	0.31	-	-
3	0.41	5	0.68	11	1.25	3	0.34	14	0.87	8	0.50
5	0.68	11	1.51	5	0.57	11	1.25	10	0.62	22	1.37
730	100.00	-	-	875	100.00	-	-	1,605	100.00	-	-
12	-	-	-	19	-	-	-	31	-	-	-
742	-	-	-	894	-	-	-	1,636	-	-	-

friendly visitor for two years or more, 89 per cent of the chief causes of distress were deemed to lie within the family. On the other hand, if we consider the families new to the Conferences during the year under consideration, while in the aggregate 88.29 per cent of the causes were within the family, we find that the percentage rises to 90.14 in the recurrent cases, this percentage comprising 658 families known to charity before June 1, 1898, and drops to 86.74 per cent in the families not known to any charity before that date.

The causes of distress within the family which lead in every class are sickness, accident, or death; intemperance; and lack of thrift, industry, or judgment. Variations with respect to the relative importance of these causes in the different classes will, however, be noted. Respecting these variations in the 1,636 families new to the Conferences during the year ending May 31, 1899, Miss Smith remarks:

They show that sickness, accident, or death, is the most frequent chief cause of need (30.86 per cent) with those in distress for the first time, and intemperance the most frequent (27.53 per cent) in the recurrent cases. . . . Lack of thrift, industry, or judgment appears more often both as a chief cause and a subsidiary among the recurrent cases than among the new ones. Reasons for these variations may be found both in our means of knowledge and in the character of the families. Present sickness is obvious, while careful inquiry may not at first disclose the habit of drink or want of sense or push or forethought,—these become known on longer acquaintance; while the distress and misery caused by such a habit or by want of vigor is of longer duration, and more likely to recur than that caused by temporary sickness.

It is clear, also, that, the more thoroughly we know a family, the more likely are we to count intemperance, if it appears at all, as the chief cause; while sickness, accident, or death, and especially lack of thrift, industry, or judgment, are more often counted as subsidiary causes.*

In many cases, though probably not a large proportion relatively, the cause which appears in the table as the chief, is no longer active at the time of distress. For example, a man, the sole bread-winner of a family, dies of an accident caused by his own drunkenness; and his intemperance is the chief cause of distress. But the solution of the family's present difficulties is governed by the strength of character and skill of hand of his widow, her ability to serve as both father and mother to her children, and by the existence of relatives able to help. The decisions as to relief, therefore, and the task before the friendly visitor are not altogether dependent upon the causes given in the table.

In the 1,000 families not new to the Conferences during the year under consideration, sickness, accident, or death appears as the chief cause in 33.30 per cent of the cases; intemperance in 29.30 per cent; lack of thrift, industry, or judgment in 10.80 per cent. In the families in this group for which subsidiary causes are reported, intemperance is ranked as a subsidiary cause in 7.50 per cent, while lack of thrift, industry, or judgment appears in 19.50 per cent, and sickness, accident, or death takes the first place among the subsidiary as well as among the chief causes, reaching 24.70 per cent.

In the 1,636 families new to the Conferences during the year, physical or mental defects appear as the chief cause in 4.49 per cent of the cases, showing little variation from the conditions obtaining in the families not new, wherein the percentage is 4.40. In the families new to the Conferences, disregard of family ties, as the chief cause of distress, covers 7.54 per cent of the cases, and this also covers 5.70 per cent of the cases in the families not new. Upon this point Miss Smith remarks:

We should like to believe that we had been able to restore or strengthen the natural ties, and therefore did not need to provide the continued interest of a friendly visitor.

Lack of thrift, industry, or judgment, as the chief cause of distress, covers 10.80 per cent of the families in the care of a friendly visitor two years or more, 17.57 per cent of the families new to the Conferences during the year under consideration, and 19.04 per cent in the recurrent cases in this last-named group. It is given as a subsidiary cause in 19.50 per cent of the cases reported among the families in care of a friendly visitor for two years or more, and in 13.21 per cent of the families new to the Conferences during the year, the percentage being 14.79 among the subsidiary causes in the recurrent cases within the last-named group.

Concerning the causes outside the family, Miss Smith states:

We find that the chief cause of distress lies outside the family in 12.69 per cent of the families in distress for the first time this year; in 9.18 per cent of those new to our

* This statement is based upon the result shown in the 1,000 families visited for two years or more.

District Conferences, but previously known to some charity; and in 9.60 per cent of the visited families. But in these several groups the proportion attributed to one cause, lack of employment, not due to employé, is respectively 10.74, 7.67, and nine per cent. The outside cause most obvious to the family itself and to the charitable worker is lack of adjustment in the industrial world.

Here the want of adaptability on the part of the employé has also to be taken into account; and it is significant that the tabulators were forced to add a cause that did not appear in the printed form,—lack of training for work,—as the chief cause in 24 cases, and as an important subsidiary cause in 56 others. Had this heading appeared in the original form, doubtless these figures would have been much larger. Whether this means that men have not taken advantage of opportunities for training or that they have had no such opportunity, we can hardly judge, while two-thirds of our poor people are foreign born; but it emphasizes strongly the need of industrial education, or at least of manual training, in our own schools.

In the 96 families in care of a friendly visitor for two years or more, wherein the chief cause of distress was given as outside the family, lack of employment, not due to employé, covers practically all the cases, only six families out of the whole number appearing under other heads. In 14 other families lack of training for work was the chief cause.

In the 178 families new to the District Conferences during the year under consideration, wherein the chief cause of distress was outside the family, lack of employment, not due to employé, appears in 150 instances, including 56 recurrent cases. Defective sanitation was given as the chief cause in two instances; degrading surroundings in two; unwise philanthropy in four; public calamity in one; persecution in their own country in five; and volunteer service in the United States army during the war with Spain in 14. In every case these form less than one per cent of the total number of new families. Lack of training for work was given as the chief cause of distress in 10 cases among the new families.

Although unwise philanthropy and degrading surroundings appear as the chief causes in a limited number of cases only, they each assume greater importance as subsidiary causes. Thus, in the families not new during the year under consideration, degrading surroundings appear as a subsidiary cause in 1.50 per cent of the instances, and unwise philanthropy as subsidiary in 2.30 per cent. In the families new to the Conferences during the year, degrading surroundings as a subsidiary cause appear in 1.74 per cent of the cases, and unwise philanthropy in 2.18 per cent. It should be explained that the term “unwise philanthropy” means that the families concerned have been pauperized or made willing dependents by too easy receipt of alms. Degrading surroundings as a subsidiary cause appear most influential in the new cases, and unwise philanthropy in the recurrent cases.

As to defective sanitation as a cause, Miss Smith remarks:

Defective sanitation appears as a chief cause in two instances and subsidiary in six; but no one observant of the conditions of life among the poor will feel that

this tells the whole story. Acute and contagious diseases, directly traceable to defective sanitation, have been largely done away with in Boston by the action of the Board of Health; but the low vitality and ailing conditions induced by want of proper light and air are not so easily traced to their sources, especially when the persons concerned frequently change their dwelling. Making all allowance for a trying climate, inherited tendencies, and careless personal habits, one must believe that in the multitude of cases in which sickness, accident, or death is the cause of distress there is a heavy charge against the community, and that our State and city should further safeguard hazardous employments, provide ample open spaces near the dwellings of the people, and constantly lift the sanitary standard for the dwelling and the workshop.

Although the statistical results relating to causes of distress outside the family are somewhat meagre, nevertheless, the study of these causes is believed to have an important bearing on the administration of the work of the Associated Charities. To use the words of the Secretary:

It has been made clear to the workers what many of us knew already, — that we too often “take short-sighted views of the causes of poverty.” The instruction “Give the cause that is farthest back, provided you really know it,” stimulates one to get that knowledge in future. One of our newer workers lately remarked that making some of these schedules last spring had fixed the habit of studying each family’s situation with a view to devising plans that would do more than alleviate, — that would remove the cause. Such a habit should help to throw the emphasis of our work even more largely than heretofore upon preventive charity and the promotion of preventive measures of a general and public nature.

Decisions as to Relief.

The decisions on the cases shown in the foregoing tables are next presented.

DECISIONS AS TO RELIEF.	FAMILIES NOT NEW THIS YEAR		FAMILIES NEW TO THE DISTRICT CONFERENCES DURING THE YEAR ENDING May 31, 1899					
	IN CARE OF A FRIENDLY VISITOR TWO YEARS OR MORE		KNOWN TO CHAR- ITY BEFORE June 1, 1898		NOT KNOWN TO ANY CHARITY BEFORE June 1, 1898		TOTAL FAMILIES NEW TO THE DIS- TRICT CONFER- ENCES THIS YEAR	
	Number	Percent- ages	Number	Percent- ages	Number	Percent- ages	Number	Percent- ages
Should have continuous relief (not indoor),*	156	15.60	42½	5.73	27½	3.08	70	4.23
Should have intermittent relief (not indoor),	110	11.00	22	2.96	10	1.12	32	1.96
Should have temporary relief (not indoor),	228½	22.85	109½	14.76	152	17.00	261½	15.98
Should have transportation from city,	11	1.10	14	1.89	64	7.16	78	4.77
Should have indoor relief,	42½	4.25	88	11.86	96½	10.79	184½	11.23
Needing visitation and advice only,	107½	10.75	111½	15.03	106	11.86	217½	13.29
Needing work — relief if no work is provided,	173½	17.35	91	12.26	124½	13.93	215½	13.17
Needing work — no relief,	124	12.40	162½	21.90	194	21.70	356½	21.79
Needing discipline only,	47	4.70	52	7.01	48½	5.42	100½	6.14
Not requiring action,	-	-	49	6.60	71	7.94	120	7.34
TOTAL NUMBER OF FAMILIES,	1,000	100.00	742	100.00	894	100.00	1,636	100.00

* Likely to need relief at least *two years*.

In this table, as well as in those which appear hereinafter relating to decisions, fractions of families will in some instances be noted. For example, the table shows $261\frac{1}{2}$ families for which the decision temporary relief (not indoor) was given. The fraction in this and in all similar instances in the present and subsequent tables is due to the fact that sometimes different decisions were made respecting the two persons who are usually united at the head of the family, — as when the need of work was decided upon as to one and indoor relief as to the other. In such cases the unit for the family was fractionally divided, and therefore a fraction sometimes comes out in the aggregations.

Considering the families not new to the Conferences during the year, which had been in care of a friendly visitor for two years or more, the decisions were as follows: Continuous relief (not indoor), implying that the family would require relief for two years or more, 15.60 per cent; intermittent relief (not indoor), 11 per cent; temporary relief (not indoor), 22.85 per cent; indoor relief, 4.25 per cent; transportation from the city, 1.10 per cent. These include all the families requiring direct relief apart from work, and they aggregate 54.80 per cent of the entire number of families in this class. Visitation and advice only was the decision in 10.75 per cent of the cases; work — relief if no work is provided, in 17.35 per cent; work — no relief, in 12.40 per cent; and discipline only, in 4.70 per cent. The need of work is therefore specified as the primary decision in 29.75 per cent of the cases in this class considered in the aggregate.

In the families new to the Conferences during the year under consideration, the decisions were as follows: Continuous relief (not indoor), implying that relief must be furnished for two years or more, 4.28 per cent; intermittent relief (not indoor), 1.96 per cent; temporary relief (not indoor), 15.98 per cent; indoor relief, 11.28 per cent; transportation from the city, 4.77 per cent; the cases in which direct relief was decided upon thus aggregating 38.27 per cent. Visitation and advice only was the decision in 13.29 per cent of the cases; work — relief if no work is provided, in 13.17 per cent; work — no relief, in 21.79 per cent; discipline only, in 6.14 per cent; and no action required in 7.34 per cent. Work is indicated as the primary need in 34.96 per cent of the cases in the aggregate. This also leads among the decisions rendered as to the families which, although new to the officers during the year, were known to charity before June 1, 1898.

Correlations of Causes of Distress.

In order to enable the reader to determine the relation of subsidiary to chief causes, we insert the two tables which follow. The first covers the 1,000 families in the care of district visitors for two years or more.

	CLASSIFICATION OF CHIEF CAUSES OF DISTRESS.	Number of Families	CLASSIFICATION OF SUBSIDIARY CAUSES OF DISTRESS		
			WITHIN THE FAMILY		
			Disregard of Family Ties	Intemperance	Licentiousness
1	WITHIN THE FAMILY.	890	-	-	-
2	Disregard of family ties,	57	-	6	1
3	Intemperance,	293	24	-	11
4	Licentiousness,	33	5	11	-
5	Dishonesty, or other moral defects,	22	-	7	-
6	Lack of thrift, industry, or judgment,	108	2	11	-
7	Physical or mental defects,	44	4	1	-
8	Sickness, accident, or death,	333	13	29	4
9	OUTSIDE THE FAMILY.	96	-	-	-
10	Persecution in own country,	3	-	-	-
11	Lack of employment, not due to employé,	90	2	10	-
12	Degrading surroundings,	1	-	-	1
13	Unwise philanthropy,	1	-	-	-
14	Public calamity,	1	-	-	-
15	MISCELLANEOUS.	14	-	-	-
16	Lack of training for work,	14	-	-	-
17	AGGREGATES.	1,000	-	-	-
18	Within the family,	890	-	-	-
19	Outside the family,	96	-	-	-
20	Miscellaneous,	14	-	-	-

Referring to the principal causes within the family, the fact at once appears that while in 293 families intemperance was the chief cause, there were subsidiary causes affecting some of these families, as follows: In 24 instances, disregard of family ties; in 11, licentiousness; in 16, dishonesty, or other moral defects; in 89, lack of thrift, industry, or judgment; in nine, physical or mental defects; in 114, sickness, accident, or death; in 19, lack of employment, not due to employé; in three, defective sanitation; in seven, degrading surroundings; in 10, unwise philanthropy; in seven, lack of training for work. On the other hand, in several instances intemperance appears as a subsidiary cause in families where the chief cause is some other.

Although there were 333 families in which sickness, accident, or death was given as the chief cause, some of these families were affected by subsidiary causes, as follows: Disregard of family ties, 13; intemperance, 29; licentiousness, four; dishonesty, or other moral defects, five; lack of thrift, industry, or judgment, 58; physical or mental defects, 10; lack of employment, not due to employé, 58; degrading surroundings, two; unwise philanthropy, three; lack of training for work, 12.

In the aggregate, although in 890 families out of 1,000 the chief cause of distress was within the family, there were in many instances subsidiary causes without, as well as within the family, and the 96 families in which the chief cause was outside the family were affected in a number

CLASSIFICATION OF SUBSIDIARY CAUSES OF DISTRESS									
WITHIN THE FAMILY				OUTSIDE THE FAMILY				Lack of Training for Work	
Dishonesty, or Other Moral Defects	Lack of Thrift, Industry, or Judgment	Physical or Mental Defects	Sickness, Accident, or Death	Lack of Employment, not due to Employé	Defective Sanitation	Degrading Surroundings	Unwise Philanthropy		
-	-	-	-	-	-	-	-	-	1
1	9	1	24	-	-	1	1	1	2
16	89	9	114	19	3	7	10	7	3
3	9	3	8	4	-	2	1	-	4
-	4	-	7	3	-	-	-	2	5
1	-	9	46	11	1	2	8	5	6
1	6	-	15	1	-	1	-	3	7
5	58	10	-	58	-	2	3	12	8
-	-	-	-	-	-	-	-	-	9
-	-	-	1	2	-	-	-	1	10
2	14	2	24	-	-	-	-	3	11
-	-	-	1	-	-	-	-	-	12
-	1	-	1	-	-	-	-	-	13
-	-	-	-	1	-	-	-	-	14
-	-	-	-	-	-	-	-	-	15
1	5	-	6	2	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	-	20

of cases by subsidiary causes within the family, all of which clearly appears in the table.*

Perhaps the clearest illustration of the interplay of causes, some of which are within, while others are without the family, is presented by the fact that among the 890 families in which the chief cause of distress was definitely determined by the visitor to lie within the family, there are, nevertheless, numerous instances in which lack of employment, not due to any defect in the person, was given as a subsidiary cause, while in many cases lack of training for work was also given as subsidiary.

Who can determine just how far these causes may react upon one another? The fact that the cause of distress is subsidiary in any given instance does not mean that it is unimportant. On the contrary, such a cause as lack of work, or more especially, lack of training for work, if at the time of original distress subsidiary, may have an important bearing upon the recurrence of distress, or, if long continued, may bring in its train some of the evils which always occupy a leading place in the statistics of charity, such as intemperance, lack of thrift, or even licentiousness and dishonesty, any one of which may tend to become permanent within the family.

The next table refers to the 1,636 families new to the Conferences during the year under consideration.

* See foot-note, page 126, *ante*.

	CLASSIFICATION OF CHIEF CAUSES OF DISTRESS.	Number of Families	CLASSIFICATION OF SUBSIDIARY CAUSES OF DISTRESS			
			WITHIN THE FAMILY			
			Disregard of Family Ties	Intemperance	Licentiousness	Dishonesty, or Other Moral Defects
1	WITHIN THE FAMILY.	1,417	-	-	-	-
2	Disregard of family ties,	121	-	16	7	8
3	Intemperance,	336	31	-	26	25
4	Licentiousness,	83	13	15	-	10
5	Dishonesty, or other moral defects,	66	6	12	5	-
6	Lack of thrift, industry, or judgment,	282	22	40	3	21
7	Physical or mental defects,	72	6	4	-	4
8	Sickness, accident, or death,	457	17	32	5	5
9	OUTSIDE THE FAMILY.	178	-	-	-	-
10	Persecution in own country,	5	-	-	-	-
11	Volunteer service in U. S. army,*	14	1	2	-	-
12	Lack of employment, not due to employé,	150	6	4	2	2
13	Defective sanitation,	2	-	-	-	-
14	Degrading surroundings,	2	-	2	-	1
15	Unwise philanthropy,	4	-	-	1	-
16	Public calamity,	1	-	-	-	-
17	MISCELLANEOUS.	41	-	-	-	-
18	Lack of training for work,	10	-	-	-	1
19	Unclassified,	31	-	-	-	-
20	AGGREGATES.	1,636	-	-	-	-
21	Within the family,	1,417	-	-	-	-
22	Outside the family,	178	-	-	-	-
23	Miscellaneous,	41	-	-	-	-

* War with Spain

As in our consideration of the preceding table we referred only to the important lines, we need only note with reference to the present table that while in 336 families the chief cause was intemperance, some of these families were affected by subsidiary causes, as follows: Disregard of family ties, 31; licentiousness, 26; dishonesty, or other moral defects, 25; lack of thrift, industry, or judgment, 78; physical or mental defects, 10; sickness, accident, or death, 85; volunteer service in United States army, two; lack of employment, not due to employé, 22; degrading surroundings, eight; unwise philanthropy, eight; and lack of training for work, four.

Although 282 families were in distress chiefly from lack of thrift, industry, or judgment, the instances in which subsidiary causes affected these families are: Disregard of family ties, 22; intemperance, 40; licentiousness, three; dishonesty, or other moral defects, 21; physical or mental defects, 12; sickness, accident, or death, 63; volunteer service in United States army, one; lack of employment, not due to employé, 26; defective sanitation, one; degrading surroundings, five; unwise philanthropy, 10; lack of training for work, six.

The 457 families in which sickness, accident, or death was given as the chief cause were affected by subsidiary causes, as follows: Disregard of family ties, 17; intemperance, 32; licentiousness, five, dishonesty,

CLASSIFICATION OF SUBSIDIARY CAUSES OF DISTRESS										
WITHIN THE FAMILY			OUTSIDE THE FAMILY						Lack of Training for Work	
Lack of Thrift, Industry, or Judgment	Physical or Mental Defects	Sickness, Accident, or Death	Volunteer Service in U. S. Army *	Lack of Employment, not due to Employé	Defective Sanitation	Degrading Surroundings	Unwise Philanthropy	Public Calamity		
-	-	-	-	-	-	-	-	-	-	1
15	2	38	-	11	-	-	2	-	3	2
78	10	85	2	22	-	8	8	-	4	3
10	3	19	-	2	-	5	2	-	-	4
13	6	9	-	4	-	5	5	-	1	5
-	12	63	1	26	1	5	10	-	6	6
9	-	6	-	4	-	1	1	-	-	7
59	17	-	4	57	1	4	3	1	6	8
-	-	-	-	-	-	-	-	-	-	9
1	-	1	-	3	-	-	-	-	-	10
2	1	6	-	1	-	-	-	-	1	11
20	1	40	1	-	-	-	2	-	1	12
-	-	2	-	-	-	-	-	-	-	13
-	-	-	-	-	-	-	-	-	-	14
3	-	2	-	1	-	-	-	-	-	15
1	-	1	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	-	17
1	1	2	-	1	-	-	2	-	-	18
-	-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	-	-	20
-	-	-	-	-	-	-	-	-	-	21
-	-	-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	-	23

* War with Spain.

or other moral defects, five; lack of thrift, industry, or judgment, 59; physical or mental defects, 17; volunteer service in United States army, four; lack of employment, not due to employé, 57; defective sanitation, one; degrading surroundings, four; unwise philanthropy, three; public calamity, one; lack of training for work, six.

Among the 150 families wherein the chief cause of distress was lack of employment, not due to the employé, the following instances of subsidiary causes were found: Disregard of family ties, six; intemperance, four; licentiousness, two; dishonesty, or other moral defects, two; lack of thrift, industry, or judgment, 20; physical or mental defects, one; sickness, accident, or death, 40; volunteer service in United States army, one; unwise philanthropy, two; lack of training for work, one.

While these results are not novel to those acquainted with statistics of charity, they bring out forcibly the fact, well-known but often ignored, that the distress from which charity relief is sought is seldom due to a single cause, although some one factor may be and generally is predominant. They afford renewed evidence of the complexity of the problem which confronts the charity worker, and should have a restraining influence when theoretical or hasty generalizations are made respecting either causes or remedies. It is obvious that nearly every family presents a different problem, notwithstanding similarities which make it possible to

group them in classes, and that only intimate knowledge, and the help and advice based upon continuous friendly interest, encouragement, and frequent personal contact can be really effective in its solution.

The Aged Poor.

The families in the principal classes need a closer analysis than can be given in the general tables so far presented. The material is at hand for such an analysis respecting families included among the 1,636 cases new to the District Conferences during the year under consideration. We first take up those wherein no member was under 55 years of age; that is where all the members were beyond the productive age limit or were nearing this limit. For such families only, the chief causes of distress are given in the following table:

CLASSIFICATION OF CHIEF CAUSES OF DISTRESS.	FAMILIES WITH NO MEMBER UNDER 55 YEARS OF AGE, HEADS BEING—					Total
	Married Couples	Widows and Women Di- vorced or Separated (Legally)	Deserted Wives	Widow- ers	Single Men and Women and Mis- cellaneous	
WITHIN THE FAMILY.	25	61	5	15	37	143
Disregard of family ties,	2	8	1	1	2	14
Intemperance,	4	7	1	1	6	19
Licentiousness,	1	1	-	1	-	3
Dishonesty, or other moral defects, . . .	-	1	-	-	1	2
Lack of thrift, industry, or judgment, . .	4	11	-	5	5	25
Physical or mental defects,	5	6	-	2	10	23
Sickness, accident, or death,	9	27	3	5	13	57
OUTSIDE THE FAMILY.	4	5	-	1	1	11
Volunteer service in U. S. army,*	1	-	-	-	-	1
Lack of employment, not due to employé, .	3	4	-	1	1	9
Unwise philanthropy,	-	1	-	-	-	1
MISCELLANEOUS.	-	5	-	-	2	7
Lack of training for work,	-	1	-	-	1	2
Unclassified,	-	4	-	-	1	5
AGGREGATES.	29	71	5	16	40	161
Within the family,	25	61	5	15	37	143
Outside the family,	4	5	-	1	1	11
Miscellaneous,	-	5	-	-	2	7

* War with Spain.

The families included in the foregoing table comprise 29 families whose heads were married couples, 71 wherein the heads were widows and women divorced or separated legally, five whose heads were deserted wives, 16 having widowers as heads, and 40 single men and women and families classed as miscellaneous. Only the more numerous causes of distress will be summarized.

As to the married couples, in 25 cases the cause of distress was within the family, sickness, accident, or death appearing as the principal cause in nine cases, and physical or mental defects in five. The cause of distress was outside the family in four instances, in one of which volunteer service in the United States army was cited as the chief cause,

lack of employment, not due to employé, being given in the others. With respect to families whose heads were widows and women divorced or legally separated, there are 61 cases in which the chief cause was within the family, sickness, accident, or death appearing in 27 instances, and lack of thrift, industry, or judgment in 11. In five cases where the chief cause was outside the family, lack of employment, not due to employé, appears in four. Of the five deserted wives, sickness, accident, or death was ascribed as the chief cause of distress in three instances. Of the families headed by widowers, in 15 instances the chief cause was within the family, lack of thrift, industry, or judgment appearing in five, and sickness, accident, or death in five. Of the families having as heads single men and women and those classed as miscellaneous, there are 37 in which the chief cause was within the family, sickness, accident, or death appearing in 13 instances, and physical or mental defects in 10.

In the aggregate respecting these families with no member under 55 years of age, there appear 143 in which the chief cause of distress was within the family, including sickness, accident, or death in 57 instances; lack of thrift, industry, or judgment in 25; physical or mental defects in 23; intemperance in 19; disregard of family ties in 14; licentiousness in three; dishonesty, or other moral defects, in two. There are 11 families in which the chief cause of distress was outside the family, lack of employment, not due to employé, appearing in nine, volunteer service in United States army, one, and unwise philanthropy, one. Under miscellaneous causes of distress, which include seven cases, lack of training for work appears in two instances.

The next table shows the decisions that were rendered with respect to the families just considered.

DECISIONS AS TO RELIEF.	FAMILIES WITH NO MEMBER UNDER 55 YEARS OF AGE, HEADS BEING —					Total
	Married Couples	Widows and Women Di- vorced or Separated (Legally)	Deserted Wives	Widow- ers	Single Men and Women and Mis- cellaneous	
Should have continuous relief (not indoor),*	6½	15	—	1	8	30½
Should have intermittent relief (not indoor),	1	4	—	—	—	5
Should have temporary relief (not indoor), .	4	6	1	—	2	13
Should have transportation from city, . .	—	3	—	1	4	8
Should have indoor relief,	7½	21	2	6	12	48½
Needing visitation and advice only, . . .	1	3	1	1	2	8
Needing work — relief if no work is provided,	6	8	—	1	4	19
Needing work — no relief,	3	2	—	1	4	10
Needing discipline only,	—	1	1	1	2	5
Not requiring action,	—	8	—	4	2	14
TOTALS,	29	71	5	16	40	161

* Likely to need relief at least *two years*.

We summarize the leading decisions only, referring to the families by heads. Considering first the married couples, indoor relief is indi-

ated in $7\frac{1}{2}$ cases; continuous relief (not indoor), likely to continue two years or more, in $6\frac{1}{2}$; and work — relief to be provided if no work was found, in six. With respect to the 71 widows and women divorced or legally separated, indoor relief was the decision rendered in 21 instances; continuous relief (not indoor) in 15. In the case of the five deserted wives, indoor relief was decided upon in two instances; temporary relief (not indoor) in one; visitation and advice only in one; and discipline only in one. With respect to the 16 widowers, indoor relief was the decision in six instances; no action required in four. Of the 40 cases involving single men and women and miscellaneous, indoor relief was decided upon in 12 instances; continuous relief (not indoor) in eight; transportation from the city, work — relief to be provided if no work was found, and work without other form of relief, in four instances, respectively.

Married Couples.

The first group of families considered is that in which the heads were

	CLASSIFICATION OF CAUSES OF DISTRESS.	AGED — NO MEMBER OF FAMILY UNDER 55 YEARS		WITH ALL CHILDREN DEPENDENT — ONLY TWO MEMBERS OF FAMILY (THE MARRIED COUPLE) OVER 14 YEARS			
		Chief	Subsidiary	1 CHILD UNDER 14 YEARS		2 CHILDREN UNDER 14 YEARS	
				Chief	Subsidiary	Chief	Subsidiary
1	WITHIN THE FAMILY.	25	—	114	—	130	—
2	Disregard of family ties,	2	4	3	2	3	8
3	Intemperance,	4	2	39	10	44	19
4	Licentiousness,	1	—	6	6	3	4
5	Dishonesty, or other moral defects,	—	2	7	10	9	6
6	Lack of thrift, industry, or judgment,	4	3	25	17	30	32
7	Physical or mental defects,	5	—	4	2	1	1
8	Sickness, accident, or death,	9	7	30	24	40	27
9	OUTSIDE THE FAMILY.	4	—	16	—	30	—
10	Persecution in own country,	—	—	—	—	—	—
11	Volunteer service in U. S. army,*	1	—	1	1	5	—
12	Lack of employment, not due to employé,	3	4	15	6	23	10
13	Defective sanitation,	—	—	—	—	—	1
14	Degrading surroundings,	—	—	—	3	2	3
15	Unwise philanthropy,	—	—	—	4	—	3
16	MISCELLANEOUS.	—	—	4	—	3	—
17	Lack of training for work,	—	—	2	—	1	2
18	Unclassified,	—	—	2	—	2	—
19	AGGREGATES.	29	—	134	—	163	—
20	Within the family,	25	—	114	—	130	—
21	Outside the family,	4	—	16	—	30	—
22	Miscellaneous,	—	—	4	—	3	—

* War with Spain.

The first two columns of the table present the statistics for married couples in families no member of which was under 55 years of age. In 25 instances the chief cause of distress was within the family and in four outside the family, and these have already been analyzed on page 136.

Summarizing as to the 161 aged families of the class mentioned, indoor relief was decided upon in $48\frac{1}{2}$ instances; continuous relief (not indoor) in $30\frac{1}{2}$ instances; work — relief to be provided if no work is found, in 19; work without other form of relief in 10; while eight families required visitation and advice only; five discipline only; and 14 required no action.

We next take up families of the different classes, presenting both chief and subsidiary causes, so as to be compared, and also the decisions, giving the aggregates in each class and also subdividing the classes into three groups, first, those wherein no member of the family was under 55 years of age; second, those having all the children dependent, *i. e.*, under 14 years of age, no other member of the family except the heads being over 14; and third, all other families of the class.

married couples. The first table exhibits in detail the causes of distress.

WITH ALL CHILDREN DEPENDENT— ONLY TWO MEMBERS OF FAMILY (THE MARRIED COUPLE) OVER 14 YEARS				OTHER FAMILIES HAVING AS HEADS MARRIED COUPLES		TOTAL FAMILIES HAVING AS HEADS MARRIED COUPLES		
3 CHILDREN UNDER 14 YEARS		4 OR MORE CHILDREN UNDER 14 YEARS						
Chief	Subsidiary	Chief	Subsidiary	Chief	Subsidiary	Chief	Subsidiary	
93	-	111	-	233	-	761	-	1
1	3	-	6	11	16	20	39	2
23	8	30	8	81	35	226	82	3
4	5	-	-	13	7	27	22	4
9	3	7	7	11	21	43	49	5
20	22	32	29	71	41	182	144	6
6	-	2	5	11	15	29	23	7
30	24	40	28	85	55	234	165	8
15	-	29	-	37	-	131	-	9
-	-	1	-	4	-	5	-	10
1	1	2	1	1	3	11	6	11
13	12	25	15	29	37	108	84	12
1	-	1	-	-	-	2	1	13
-	1	-	1	1	4	3	12	14
-	-	-	7	2	13	2	27	15
5	-	2	-	8	-	22	-	16
1	1	1	5	2	6	7	14	17
4	-	1	-	6	-	15	-	18
118	-	142	-	323	-	914	-	19
93	-	111	-	233	-	761	-	20
15	-	29	-	37	-	131	-	21
5	-	2	-	8	-	22	-	22

The subsidiary causes may now be summarized, and in the table they may be compared with the chief causes. As to the different subsidiary causes of distress within the family, there were seven cases in which sickness, accident, or death was regarded as a subsidiary cause; in two

cases intemperance was assigned, and in three lack of thrift, industry, or judgment. Disregard of family ties appeared in four instances, and dishonesty, or other moral defects, in two. As to the four instances wherein a subsidiary cause was found outside the family, lack of employment, no due to employé, was given as this cause.

The next subdivision of the table includes families wherein the heads were married couples and in which only two members of the family (*i. e.*, the married couple) were over 14 years of age and all the children were dependent, that is to say, under 14 years of age. There are four groups of families within this subdivision, namely, those containing respectively one child under 14 years of age, two children under 14 years of age, three children under 14 years of age, and four or more children under 14 years of age.

In the first group (those having one child under 14 years of age), the leading causes within the family, covering in the aggregate 114 families, are, in order named, intemperance, 39; sickness, accident, or death, 30; and lack of thrift, industry, or judgment, 25. Among the 16 families in this group wherein the chief cause of distress was outside the family, there are 15 in which lack of employment, not due to employé, was ascribed as the cause, and one in which volunteer service in the United States army was given. In six instances lack of employment, not due to employé, was given as a subsidiary cause outside the family, while in the following instances the causes specified were considered subsidiary causes within the family: Sickness, accident, or death, 24; lack of thrift, industry, or judgment, 17; dishonesty, or other moral defects, 10; intemperance, 10. In two instances lack of training for work was given as the chief cause.

With respect to families of the class under consideration having two children under 14 years of age, there are 130 for which the causes were specified as within the family, the principal causes stated being as follows, in order named: Intemperance, 44; sickness, accident, or death, 40; lack of thrift, industry, or judgment, 30. These causes were given as subsidiary in the following number of instances: Lack of thrift, industry, or judgment, 32; sickness, accident, or death, 27; intemperance, 19. With respect to the chief causes of distress outside of the family, 30 families being included, there are 23 in which lack of employment, not due to employé, was given as the cause, while in 10 families this appeared as a subsidiary cause. In one family of this group, lack of training for work was given as the chief cause of distress, and it appeared as a subsidiary cause in two other families.

With respect to the families of the class named having three children under 14 years of age, there are 98 affected by causes within the family, sickness, accident, or death being given as the chief cause in 30 instances; intemperance in 28; and lack of thrift, industry, or judgment in 20.

These causes were also given as subsidiary in the following instances: Sickness, accident or death, 24; lack of thrift, industry, or judgment, 22; intemperance, eight. There are 15 families in which the chief cause lay outside the family, and among these, 13 instances are given of lack of employment, not due to employé; and this also appeared in 12 other instances as a subsidiary cause. There was but one instance in families of this group in which lack of training for work was given as the chief cause, and it appeared in one other instance as a subsidiary cause.

In families of the class under consideration having four or more children under 14 years of age, there are 111 in which the chief causes were given as within the family, the more numerous being, sickness, accident, or death, 40; lack of thrift, industry, or judgment, 32; intemperance, 30. These causes appeared as subsidiary to the following extent: Lack of thrift, industry, or judgment, 29; sickness, accident, or death, 28; intemperance, eight. In the 29 families in which the cause lay outside the family, lack of employment, not due to employé, appeared as the chief cause in 25 instances, and in 15 other cases it was given as a subsidiary cause. In one instance lack of training for work was given as the chief cause, and in five others as a subsidiary cause.

There are statistics contained in the table for married couples other than those so far considered, and in 283 such families the chief cause of distress was within the family, being sickness, accident, or death in 85 instances, intemperance in 81, and lack of thrift, industry, or judgment in 71. These three causes appeared as subsidiary to the following extent: Sickness, accident, or death, 55; lack of thrift, industry, or judgment, 41; intemperance, 35. Of the 37 families wherein the chief cause of distress lay outside the family, there are 29 in which lack of employment, not due to employé, was stated, and this also appeared as a subsidiary cause in 37 other instances. In two instances lack of training for work was given as the chief cause, and in six as a subsidiary cause.

The final columns of the table bring together in the form of aggregates the statistics for the married couples which have just been analyzed in detail by subdivisions. In the aggregate, there are 761 married couples for whom the chief causes appear within the family, and of these in 234 instances the distress was due to sickness, accident, or death; in 226, to intemperance; in 182, to lack of thrift, industry, or judgment; in 43, to dishonesty, or other moral defects; in 29, to physical or mental defects; in 27, to licentiousness; in 20, to disregard of family ties. In the aggregate, there are 131 married couples for whom the chief cause of distress lay outside the family, distributed as follows: Lack of employment, not due to employé, 108; volunteer service in United States army, 11; persecution in own country, five; degrading surroundings, three; defective sanitation, two; unwise philanthropy, two. In seven families

out of 22 for which the causes of distress are not classified as being within or outside the family, lack of training for work appears as the chief cause, and in 14 other instances it appears as a subsidiary cause. The other leading subsidiary causes are distributed as follows: Within the family, sickness, accident, or death, 165; lack of thrift, industry, or judgment, 144; intemperance, 82; dishonesty, or other moral defects, 49; disregard of family ties, 39; physical or mental defects, 23; licentiousness, 22; outside the family, lack of employment, not due to employé, 84; unwise philanthropy, 27; degrading surroundings, 12; volunteer service in the United States army, six; defective sanitation, one.

The decisions which were given in the cases considered in the foregoing table are presented in the table which follows:

DECISIONS AS TO RELIEF.	Aged — No Mem- ber of Family under 55 Years	WITH ALL CHILDREN DEPENDENT — ONLY TWO MEMBERS OF FAMILY (THE MARRIED COUPLE) OVER 14 YEARS				Other Families Having as Heads Married Couples	Total Families Having as Heads Married Couples
		1 Child under 14 Years	2 Chil- dren under 14 Years	3 Chil- dren under 14 Years	4 or More Children under 14 Years		
Should have continuous relief (not indoor),*	6½	2	3	—	6	5½	23
Should have intermittent relief (not indoor),	1	3	1	1	1	5	12
Should have temporary relief (not indoor),	4	18	48½	29½	25½	47	172½
Should have transportation from city, Should have indoor relief,	— 7½	6 10½	6 7	6 9	3 5	15 26½	36 65½
Needing visitation and advice only, .	1	13	26	18	22	64½	144½
Needing work — relief if no work is provided,	6	26	19	21	27	33	132
Needing work — no relief,	3	37½	31	17½	32	83½	204½
Needing discipline only,	—	9½	10½	8	9½	22	59½
Not requiring action,	—	8½	11	8	11	26	64½
TOTALS,	29	134	163	118	142	328	914

* Likely to need relief at least *two* years.

With respect to the 29 families, the heads being married couples, no member of the family being under 55 years of age, the decisions which are reproduced in the foregoing table have been summarized on pages 137 and 138, *ante*, and do not require further attention here. The figures are simply brought forward in order that the reader may have before him for purposes of comparison all the decisions which were made respecting the married couples in the several subdivisions of the general class.

In families where the heads were married couples, with all the children dependent, and only two members of the family (*i. e.*, the married couple) over 14 years of age, and there was one child under 14 years of age, such families numbering 134, work — no relief, was indicated in 37½ instances, and relief to be furnished if no work was provided in 26.

In 18 instances the decision was that the family should have temporary relief (not indoor). These are the more numerous instances among the decisions affecting families of this kind.

Where the family contained two children under 14 years of age, temporary relief (not indoor) was the decision arrived at in $48\frac{1}{2}$ out of 163, the total number of families considered; needing work—no relief was the decision given in 31 instances; needing visitation and advice only in 26; needing work—relief if no work is provided, in 19 cases.

Where there were three children in the family under 14 years of age, temporary relief (not indoor) was decided upon in $29\frac{1}{2}$ out of 118 cases; work, relief to be furnished if no work was provided, in 21; visitation and advice only in 18; and work—no relief, in $17\frac{1}{2}$.

In cases where there were four or more children under 14 years of age, aggregating 142, work—no relief, was decided upon in 32 instances; work, relief to be furnished if no work was provided, in 27; temporary relief (not indoor) in $25\frac{1}{2}$; visitation and advice only in 22.

As to married couples other than those included in the subdivisions previously mentioned, numbering 328, need of work—no relief, was decided upon in $83\frac{1}{2}$ instances; visitation and advice only in $64\frac{1}{2}$; temporary relief (not indoor) in 47; work, relief if no work was provided, in 33; indoor relief in $26\frac{1}{2}$.

Considering all the married couples, numbering 914 in the aggregate, the leading decision was work—no relief, in $204\frac{1}{2}$ instances; temporary relief (not indoor) in $172\frac{1}{2}$; visitation and advice only in $144\frac{1}{2}$; work, relief if no work was provided, in 132. These are the more numerous decisions. The others, however, are as follows: Indoor relief, $65\frac{1}{2}$; not requiring action, $64\frac{1}{2}$; needing discipline only, $59\frac{1}{2}$; transportation from the city, 36; continuous relief (not indoor), likely to continue at least two years or more, 23; intermittent relief (not indoor), 12.

As it is generally found that more than one-half of the whole number of families in distress in any given year consists of those wherein the heads are married couples, it is interesting to note how far employment, if it could be obtained, would prove adequate in meeting the needs of these families.

Out of the whole number of aged families in this class, some form of relief, apart from work, was indicated in 20 instances out of 29, the total number. Of the married families, 328 in number, which were neither in the aged group just specified nor in which all the children were dependent, work was indicated as the primary need in $116\frac{1}{2}$ instances; visitation and advice, or discipline, or no particular action, in $112\frac{1}{2}$, leaving 99 families in this group in which relief was needed apart from work.

Widows and Women Divorced or Separated Legally.

The next two tables show the details relative to causes of distress,

	CLASSIFICATION OF CAUSES OF DISTRESS.	AGED—NO MEMBER OF FAMILY UNDER 55 YEARS		WITH ALL THE CHILDREN DEPENDENT—ONLY ONE MEMBER OF FAMILY (THE WIDOW OR WOMAN DIVORCED OR SEPARATED LEGALLY) OVER 14 YEARS			
		Chief	Subsidiary	1 CHILD UNDER 14 YEARS		2 CHILDREN UNDER 14 YEARS	
				Chief	Subsidiary	Chief	Subsidiary
1	WITHIN THE FAMILY.	61	—	20	—	20	—
2	Disregard of family ties,	8	9	1	—	1	—
3	Intemperance,	7	—	2	1	4	1
4	Licentiousness,	1	2	2	—	2	—
5	Dishonesty, or other moral defects,	1	1	—	1	2	—
6	Lack of thrift, industry, or judgment,	11	3	4	—	2	4
7	Physical or mental defects,	6	1	1	—	2	1
8	Sickness, accident, or death,	27	8	10	1	7	3
9	OUTSIDE THE FAMILY.	5	—	2	—	2	—
10	Volunteer service in U. S. army,*	—	—	—	—	—	—
11	Lack of employment, not due to employé,	4	2	2	1	1	1
12	Degrading surroundings,	—	1	—	—	—	—
13	Unwise philanthropy,	1	—	—	—	1	—
14	Public calamity,	—	—	—	—	—	1
15	MISCELLANEOUS.	5	—	—	—	1	—
16	Lack of training for work,	1	—	—	—	1	2
17	Unclassified,	4	—	—	—	—	—
18	AGGREGATES.	71	—	22	—	23	—
19	Within the family,	61	—	20	—	20	—
20	Outside the family,	5	—	2	—	2	—
21	Miscellaneous,	5	—	—	—	1	—

* War with Spain.

In the majority of cases the cause of distress lay within the family in each subdivision of the class under consideration, the chief cause in each subdivision, as well as in the aggregate, being sickness, accident, or death. In the aggregate, lack of thrift, industry, or judgment ranks next as the chief cause of distress, followed by intemperance, disregard of family ties, and dishonesty, or other moral defects, in order named. Among the causes outside the family, lack of employment, not due to employé, is preëminently first, covering 26 out of 29 families, and appearing as a subsidiary cause in 24 families. It is not necessary to point out in detail the figures presented for each of the subdivisions of the class, as they may easily be traced.

We summarize, however, the subsidiary causes of distress which affected families wherein no member was under 55 years of age, the chief causes in such families having already been analyzed on page 137. Subsidiary causes appear as follows: Disregard of family ties, in nine instances; licentiousness, two; dishonesty, or other moral defects, one; lack of thrift, industry, or judgment, three; physical or mental defects, one; sickness, accident, or death, eight; lack of employment, not due to employé, two; degrading surroundings, one.

and decisions as to widows and women divorced or separated legally. The causes of distress are first summarized in the table which follows :

WITH ALL THE CHILDREN DEPENDENT—ONLY ONE MEMBER OF FAMILY (THE WIDOW OR WOMAN DIVORCED OR SEPARATED LEGALLY) OVER 14 YEARS				OTHER FAMILIES HAVING AS HEADS WIDOWS AND WOMEN DIVORCED OR SEPARATED (LEGALLY)		TOTAL FAMILIES HAVING AS HEADS WIDOWS AND WOMEN DIVORCED OR SEPARATED (LEGALLY)		
3 CHILDREN UNDER 14 YEARS		4 OR MORE CHILDREN UNDER 14 YEARS						
Chief	Sub- sidiary	Chief	Sub- sidiary	Chief	Sub- sidiary	Chief	Sub- sidiary	
22	-	21	-	158	-	302	-	1
1	-	-	1	8	9	19	19	2
4	2	1	5	29	6	47	15	3
1	2	3	-	2	8	11	12	4
1	1	-	-	11	7	15	10	5
3	1	2	1	27	19	49	28	6
-	1	1	-	3	5	13	8	7
12	5	14	2	78	27	148	46	8
2	-	-	-	18	-	29	-	9
-	-	-	-	-	2	-	2	10
2	2	-	3	17	15	26	24	11
-	-	-	-	-	-	-	1	12
-	-	-	-	-	-	2	-	13
-	-	-	-	1	-	1	1	14
-	-	-	-	7	-	13	-	15
-	-	-	-	-	-	2	2	16
-	-	-	-	7	-	11	-	17
24	-	21	-	183	-	344	-	18
22	-	21	-	158	-	302	-	19
2	-	-	-	18	-	29	-	20
-	-	-	-	7	-	13	-	21

The decisions rendered in the families wherein the heads were widows and women divorced or separated legally are shown in the next table.

DECISIONS AS TO RELIEF.	Aged—No Member of Family under 55 Years	WITH ALL THE CHILDREN DEPENDENT—ONLY ONE MEMBER OF FAMILY (THE WIDOW OR WOMAN DIVORCED OR SEPARATED LEGALLY) OVER 14 YEARS				Other Families Having as Heads Widows and Women Divorced or Separated (Legally)	Total Families Having as Heads Widows and Women Divorced or Separated (Legally)
		1 Child under 14 Years	2 Children under 14 Years	3 Children under 14 Years	4 or More Children under 14 Years		
Should have continuous relief (not indoor),*	15	1	1	2	6	7	32
Should have intermittent relief (not indoor),	4	-	-	2	2	5	13
Should have temporary relief (not indoor),	6	5	4	3	3	25	46
Should have transportation from city,	3	-	-	-	1	5	9
Should have indoor relief,	21	1	1	1	2	21½	47½
Needing visitation and advice only, .	3	3	3	5	-	18	32
Needing work—relief if no work is provided,	8	3	6	7	1	26	51
Needing work—no relief,	2	5	6	4	4	48½	69½
Needing discipline only,	1	-	-	-	1	11	13
Not requiring action,	8	4	2	-	1	16	31
TOTALS,	71	22	23	24	21	183	344

* Likely to need relief at least two years.

The decisions as to the 71 families wherein no member was under 55 years of age have already been analyzed in detail on page 138, *ante*, and although the figures are reproduced in the table they need not be again referred to specifically, except to point out that in the majority of instances, as was found to be the case among the married couples, and as might be expected, direct relief other than work was needed among these aged families.

A different result appears in the families where all the children were dependent, only one member of the family being over 14 years of age; work without relief, and work if possible, relief to be furnished if work was not provided, outrank, when combined, all other decisions except in the case of families containing four or more children. In these, we find continuous relief not indoor to be the decision most frequently rendered.

Deserted Wives.

Tables like those just presented for the families wherein the head was a widow or woman divorced or separated legally from her husband

CLASSIFICATION OF CAUSES OF DISTRESS.		AGED—NO MEMBER OF FAMILY UNDER 55 YEARS		WITH ALL THE CHILDREN DEPENDENT — ONLY ONE MEMBER OF FAMILY (THE DESERTED WIFE) OVER 14 YEARS			
				1 CHILD UNDER 14 YEARS		2 CHILDREN UNDER 14 YEARS	
		Chief	Sub- sidiary	Chief	Sub- sidiary	Chief	Sub- sidiary
1	WITHIN THE FAMILY.	5	-	33	-	32	-
2	Disregard of family ties,	1	2	16	7	18	8
3	Intemperance,	1	1	7	7	5	3
4	Licentiousness,	-	-	6	4	3	1
5	Dishonesty, or other moral defects,	-	-	1	1	1	1
6	Lack of thrift, industry, or judgment,	-	1	1	4	1	1
7	Physical or mental defects,	-	-	-	-	-	2
8	Sickness, accident, or death,	3	1	2	5	4	4
9	OUTSIDE THE FAMILY.	-	-	2	-	-	-
10	Volunteer service in U. S. army,*	-	-	-	-	-	-
11	Lack of employment, not due to employé,	-	-	2	2	-	1
12	Unwise philanthropy,	-	-	-	1	-	1
13	MISCELLANEOUS.	-	-	-	-	-	-
14	Lack of training for work,	-	-	-	-	-	-
15	Unclassified,	-	-	-	-	-	-
16	AGGREGATES.	5	-	35	-	32	-
17	Within the family,	5	-	33	-	32	-
18	Outside the family,	-	-	2	-	-	-
19	Miscellaneous,	-	-	-	-	-	-

* War with Spain.

The subdivisions of the class to which this table relates are exactly the same as those given in the preceding tables, the first including families having no member under 55 years of age. There are but five families of this kind, as previously stated, disregard of family ties (probably alluding to the fact of desertion on the part of the husband) being the leading cause in one instance and the subsidiary cause in two. Intem-

In all other families of the class under consideration (widows, etc.), work without other form of relief was decided upon in $48\frac{1}{2}$ cases out of 183; work, relief to be provided if work was not furnished, in 26; temporary relief (not indoor) in 25; indoor relief in $21\frac{1}{2}$; visitation and advice only in 18; discipline only in 11; while 16 cases in this subdivision required no action. Summarizing all families wherein the heads were widows or women divorced or separated legally, 344 in number, work without other form of relief was decided upon in $69\frac{1}{2}$ instances; work, relief to be given if work was not provided in 51; indoor relief in $47\frac{1}{2}$; temporary relief (not indoor) in 46; continuous relief (not indoor), likely to continue for at least two years or more, in 32; intermittent relief (not indoor) in 13; visitation and advice only in 32; and no action in 31.

follow for families in which the head was a deserted wife, the first showing causes of distress.

WITH ALL THE CHILDREN DEPENDENT—ONLY ONE MEMBER OF FAMILY (THE DESERTED WIFE) OVER 14 YEARS				OTHER FAMILIES HAV- ING AS HEADS DESERTED WIVES		TOTAL FAMILIES HAV- ING AS HEADS DESERTED WIVES		
3 CHILDREN UNDER 14 YEARS		4 OR MORE CHILDREN UNDER 14 YEARS						
Chief	Sub- sidiary	Chief	Sub- sidiary	Chief	Sub- sidiary	Chief	Sub- sidiary	
18	-	15	-	46	-	149	-	1
10	5	12	2	20	8	77	32	2
5	3	1	3	12	3	31	20	3
-	1	-	-	3	-	12	6	4
1	2	-	1	1	3	4	8	5
-	2	2	1	6	4	10	13	6
1	-	-	-	1	3	2	5	7
1	2	-	2	3	21	13	35	8
-	-	-	-	5	-	7	-	9
-	-	-	-	1	-	1	-	10
-	3	-	1	4	3	6	10	11
-	-	-	-	-	2	-	4	12
-	-	-	-	1	-	1	-	13
-	2	-	-	-	-	-	2	14
-	-	-	-	1	-	1	-	15
18	-	15	-	52	-	157	-	16
18	-	15	-	46	-	149	-	17
-	-	-	-	5	-	7	-	18
-	-	-	-	1	-	1	-	19

perance is the leading cause of distress in one family, and sickness, accident, or death, in three. In families of the class specified, having all the children dependent, only one member of the family, *i. e.*, the deserted wife, being over 14 years of age, disregard of family ties appears most frequently as the leading cause of the distress. In families wherein the head was a deserted wife not belonging in the aged group and not

having all the children dependent, this is also the fact, and the same statement applies to the families considered in the aggregate which have as the head a deserted wife. These number 157, and in 77 cases disregard of family ties is given as the chief cause of distress, appearing as a subsidiary cause in 32. Intemperance is given as the chief cause in 31 cases and as a subsidiary cause in 20; licentiousness appears as the chief cause in 12 and as a subsidiary cause in six; sickness, accident, or death, is the chief cause in 13 and a subsidiary cause in 35; lack of thrift, industry, or judgment, is the chief cause in 10 and a subsidiary cause in 13. All these are included as causes of distress within the family.

As to the causes outside the family, lack of employment appears as the chief cause in six cases out of seven. It was also given as a subsidiary cause in 10 cases. In the aggregate, in the families now under consideration, the cause of distress was within the family in 149 cases out of 157.

The decisions appear in the next table.

DECISIONS AS TO RELIEF.	Aged— No Mem- ber of Family under 55 Years	WITH ALL CHILDREN DEPENDENT— ONLY ONE MEMBER OF FAMILY (THE DESERTED WIFE) OVER 14 YEARS				Other Families Having as Heads Deserted Wives	Total Families Having as Heads Deserted Wives
		1 Child under 14 Years	2 Children under 14 Years	3 Children under 14 Years	4 or More Children under 14 Years		
Should have continuous relief (not indoor),*	-	-	-	-	2	-	2
Should have intermittent relief (not indoor),	-	-	2	1	1	1	5
Should have temporary relief (not indoor),	1	8	4½	3	5	8	29½
Should have transportation from city,	-	1	3	1	-	3	8
Should have indoor relief,	2	5	3½	2	1	7	20½
Needing visitation and advice only,	1	6	6	3	2	4	22
Needing work—relief if no work is provided,	-	2	3	1	3	7	16
Needing work—no relief,	-	12	7½	4	-	14	37½
Needing discipline only,	1	1	2½	3	-	2	9½
Not requiring action,	-	-	-	-	1	6	7
TOTALS,	5	35	32	18	15	52	157

* Likely to need relief *two years*.

Considering the aged group, wherein only five families appear, we have elsewhere noted that the decision that indoor relief should be given appears in two instances; temporary relief (not indoor) in one; relief not being required in the other instances. Work, either solely or with relief if no work was provided, was given as the decision in nearly all of the instances where the children were all dependent, as well as in families having a deserted wife as a head, not included among the aged class or in the group having dependent children.

Summarizing as to all the families having a deserted wife as the head, 157 in number, work, without relief, was the decision in 37½

instances; work—relief to be provided if work could not be given, in 16; temporary relief (not indoor) in $29\frac{1}{2}$; indoor relief in $20\frac{1}{2}$; visitation and advice only in 22; discipline only in $9\frac{1}{2}$; while no action was required in seven.

It may be interesting to bring out the facts as to the nativity of the deserted wives who have thus been in need of charity relief. Are they largely of native or foreign birth? If of foreign birth, of what nativity are the majority? These questions are answered in the following tabular statement wherein the place of birth of the deserted wives is shown.

PLACE OF BIRTH OF DESERTED WIVES.		Number of Deserted Wives
NATIVE BORN.		53½
United States,		53½
White, both parents native,		18
White, one or both parents foreign,		24
Colored,		11½
FOREIGN BORN.		102½
British America,		26
Great Britain,		53½
England and Wales,		18
Scotland,		1
Ireland,		34½
Bohemia and Hungary,		1
Germany,		2
Italy,		10
Russia and Poland,		9
Scandinavia,		1
Unknown,		1
AGGREGATES.		157
Native born,		53½
Foreign born,		102½
Unknown,		1

In $53\frac{1}{2}$ families having deserted wives as heads, the place of birth is given as the United States. In $102\frac{1}{2}$ instances the heads were foreign born, included under the latter head being $34\frac{1}{2}$ born in Ireland, 26 in British America, 18 in England and Wales; 10 in Italy; and nine in Russia and Poland.

These figures may be compared with those showing the nativity of the heads of families in general on page 124, *ante*.

Widowers.

Included among the various classes of families as considered in the general presentations on pages 120 and 136 are those in which the heads are single men, single women, and miscellaneous. These we shall not consider in fuller detail, but the details respecting causes in families wherein the head was a widower follow:

CLASSIFICATION OF CAUSES OF DISTRESS.		AGED—NO MEMBER OF FAMILY UNDER 55 YEARS		WITH ALL THE CHILDREN DEPENDENT— ONLY ONE MEMBER OF FAMILY (THE WIDOWER) OVER 14 YEARS			
				1 CHILD UNDER 14 YEARS		2 CHILDREN UNDER 14 YEARS	
		Chief	Subsidiary	Chief	Subsidiary	Chief	Subsidiary
1	WITHIN THE FAMILY.	15	-	1	-	1	-
2	Disregard of family ties,	1	-	-	-	-	-
3	Intemperance,	1	2	-	-	1	-
4	Licentiousness,	1	-	-	-	-	-
5	Lack of thrift, industry, or judgment,	5	-	-	1	-	-
6	Physical or mental defects,	2	-	1	-	-	-
7	Sickness, accident, or death,	5	1	-	-	-	1
8	OUTSIDE THE FAMILY.	1	-	-	-	1	-
9	Volunteer service in U. S. army,*	-	-	-	-	-	-
10	Lack of employment, not due to employé,	1	2	-	-	1	-
11	Degrading surroundings,	-	-	-	-	-	-
12	Unwise philanthropy,	-	-	-	-	-	-
13	MISCELLANEOUS.	-	-	-	-	-	-
14	Unclassified,	-	-	-	-	-	-
15	AGGREGATES.	16	-	1	-	2	-
16	Within the family,	15	-	1	-	1	-
17	Outside the family,	1	-	-	-	1	-
18	Miscellaneous,	-	-	-	-	-	-

* War with Spain.

In the aggregate, there are only 47 heads of families in the class under consideration. The principal causes of distress, whether chief or subsidiary, are intemperance, lack of thrift, industry, or judgment, and sickness, accident, or death. In 42 instances out of 47 the chief cause was within the family, and in 22 instances the subsidiary cause was also within the family.

The decisions appear in the next table.

DECISIONS AS TO RELIEF.	Aged—No Member of Family under 55 Years	WITH ALL CHILDREN DEPENDENT— ONLY ONE MEMBER OF FAMILY (THE WIDOWER) OVER 14 YEARS				Other Families Having as Heads Widowers	Total Families Having as Heads Widowers
		1 Child under 14 Years	2 Children under 14 Years	3 Children under 14 Years	4 or More Children under 14 Years		
Should have continuous relief (not indoor),*	1	-	-	-	-	-	1
Should have intermittent relief (not indoor),	-	-	-	-	-	1	1
Should have temporary relief (not indoor),	-	-	-	-	-	3	3
Should have transportation from city,	1	-	-	-	-	3	4
Should have indoor relief,	6	1	-	1	1	4	13
Needing visitation and advice only,	1	-	1	-	1	4	7
Needing work—relief if no work is provided,	1	-	-	-	-	3	4
Needing work—no relief,	1	-	1	-	-	4	6
Needing discipline only,	1	-	-	1	-	-	2
Not requiring action,	4	-	-	1	-	1	6
TOTALS,	16	1	2	3	2	23	47

* Likely to need relief at least two years.

WITH ALL THE CHILDREN DEPENDENT— ONLY ONE MEMBER OF FAMILY (THE WIDOWER) OVER 14 YEARS				OTHER FAMILIES HAVING AS HEADS WIDOWERS		TOTAL FAMILIES HAVING AS HEADS WIDOWERS		
3 CHILDREN UNDER 14 YEARS		1 OR MORE CHILDREN UNDER 14 YEARS		Chief	Sub- sidiary	Chief	Sub- sidiary	
Chief	Sub- sidiary	Chief	Sub- sidiary					
3	-	2	-	20	-	42	-	1
-	-	-	-	-	-	1	-	2
1	1	-	-	4	2	7	5	3
-	-	-	-	-	-	1	-	4
1	-	2	-	6	6	14	7	5
-	-	-	-	1	2	4	2	6
1	1	-	-	9	5	15	8	7
-	-	-	-	2	-	4	-	8
-	-	-	-	1	-	1	-	9
-	-	-	-	1	1	3	3	10
-	-	-	1	-	-	-	1	11
-	-	-	-	-	2	-	2	12
-	-	-	-	1	-	1	-	13
-	-	-	-	1	-	1	-	14
3	-	2	-	23	-	47	-	15
3	-	2	-	20	-	42	-	16
-	-	-	-	2	-	4	-	17
-	-	-	-	1	-	1	-	18

In 13 cases out of the total number, 47, indoor relief was decided upon; in six the decision was that work was needed; and in four others, work, relief to be furnished if no work could be provided. The various subdivisions of the class, shown in the table, need not be analyzed in detail, as the numbers in each are so small that they can be easily traced.

Causes and Decisions paralleled in Families of Different Classes having Dependent Children.

In order to enable the reader to trace the causes and decisions in families of the different classes as to heads, wherein from one to four or more children were dependent on one adult (married couples being excluded), a series of tables follows in which all the facts are brought together so as to permit ready comparison.

Chief Causes of Distress—Families Having One Child under 14 Years Dependent on One Adult.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				Total
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	
WITHIN THE FAMILY.	20	33	1	9	63
Disregard of family ties,	1	16	-	1	18
Intemperance,	2	7	-	2	11
Licentiousness,	2	6	-	3	11

Chief Causes of Distress — Families Having One Child under 14 Years Dependent on One Adult — Concluded.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				Total
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	
WITHIN THE FAMILY — CON.					
Dishonesty, or other moral defects,	-	1	-	-	1
Lack of thrift, industry, or judgment, . . .	4	1	-	1	6
Physical or mental defects,	1	-	1	1	3
Sickness, accident, or death,	10	2	-	1	13
OUTSIDE THE FAMILY.					
Lack of employment, not due to employé, .	2	2	-	-	4
AGGREGATES.					
Within the family,	22	35	1	9	67
Outside the family,	20	33	1	9	63
Outside the family,	2	2	-	-	4

Decisions as to Relief — Families Having One Child under 14 Years Dependent on One Adult.

DECISIONS AS TO RELIEF.	CLASSIFICATION OF HEADS OF FAMILIES				Total
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	
Should have continuous relief (not indoor),*	1	-	-	-	1
Should have temporary relief (not indoor), .	5	8	-	-	13
Should have transportation from city, . . .	-	1	-	1	2
Should have indoor relief,	1	5	1	3	10
Needing visitation and advice only,	3	6	-	-	9
Needing work — relief if no work is provided,	3	2	-	-	5
Needing work — no relief,	5	12	-	3	20
Needing discipline only,	-	1	-	1	2
Not requiring action,	4	-	-	1	5
TOTALS,	22	35	1	9	67

* Likely to need relief at least *two years*.

Chief Causes of Distress — Families Having Two Children under 14 Years Dependent on One Adult.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	Total
WITHIN THE FAMILY.	20	32	1	3	56
Disregard of family ties,	1	18	-	-	19
Intemperance,	4	5	1	1	11
Licentiousness,	2	3	-	1	6
Dishonesty, or other moral defects,	2	1	-	1	4
Lack of thrift, industry, or judgment, . . .	2	1	-	-	3
Physical or mental defects,	2	-	-	-	2
Sickness, accident, or death,	7	4	-	-	11

Chief Causes of Distress — Families Having Two Children under 14 Years Dependent on One Adult — Concluded.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	Total
OUTSIDE THE FAMILY.	2	-	1	-	3
Lack of employment, not due to employé,	1	-	1	-	2
Unwise philanthropy,	1	-	-	-	1
MISCELLANEOUS.	1	-	-	-	1
Lack of training for work,	1	-	-	-	1
AGGREGATES.	23	32	2	3	60
Within the family,	20	32	1	3	56
Outside the family,	2	-	1	-	3
Miscellaneous,	1	-	-	-	1

Decisions as to Relief — Families Having Two Children under 14 Years Dependent on One Adult.

DECISIONS AS TO RELIEF.	CLASSIFICATION OF HEADS OF FAMILIES				
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	Total
Should have continuous relief (not indoor),*	1	-	-	-	1
Should have intermittent relief (not indoor),	-	2	-	-	2
Should have temporary relief (not indoor),	4	4½	-	1	9½
Should have transportation from city,	-	3	-	-	3
Should have indoor relief,	1	3½	-	-	4½
Needing visitation and advice only,	3	6	1	-	10
Needing work — relief if no work is provided,	6	3	-	-	9
Needing work — no relief,	6	7½	1	2	16½
Needing discipline only,	-	2½	-	-	2½
Not requiring action,	2	-	-	-	2
TOTALS,	23	32	2	3	60

* Likely to need relief at least *two years*.

Chief Causes of Distress — Families Having Three Children under 14 Years Dependent on One Adult.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	Total
WITHIN THE FAMILY.	22	18	3	4	47
Disregard of family ties,	1	10	-	-	11
Intemperance,	4	5	1	1	11
Licentiousness,	1	-	-	3	4
Dishonesty, or other moral defects,	1	1	-	-	2
Lack of thrift, industry, or judgment,	3	-	1	-	4
Physical or mental defects,	-	1	-	-	1
Sickness, accident, or death,	12	1	1	-	14

Chief Causes of Distress — Families Having Three Children under 14 Years Dependent on One Adult — Concluded.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				Total
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	
OUTSIDE THE FAMILY.	2	-	-	-	2
Lack of employment, not due to employé, .	2	-	-	-	2
AGGREGATES.	24	18	3	4	49
Within the family,	22	18	3	4	47
Outside the family,	2	-	-	-	2

Decisions as to Relief — Families Having Three Children under 14 Years Dependent on One Adult.

DECISIONS AS TO RELIEF.	CLASSIFICATION OF HEADS OF FAMILIES				Total
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	
Should have continuous relief (not indoor),*	2	-	-	2	4
Should have intermittent relief (not indoor), .	2	1	-	-	3
Should have temporary relief (not indoor), .	3	3	-	-	6
Should have transportation from city, . .	-	1	-	-	1
Should have indoor relief,	1	2	1	-	4
Needing visitation and advice only, . . .	5	3	-	-	8
Needing work — relief if no work is provided,	7	1	-	-	8
Needing work — no relief,	4	4	-	-	8
Needing discipline only,	-	3	1	2	6
Not requiring action,	-	-	1	-	1
TOTALS,	24	18	3	4	49

* Likely to need relief at least *two* years.

Chief Causes of Distress — Families Having Four or More Children under 14 Years Dependent on One Adult.

CLASSIFICATION OF CAUSES OF DISTRESS.	CLASSIFICATION OF HEADS OF FAMILIES				Total
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Miscellaneous	
WITHIN THE FAMILY.	21	15	2	1	39
Disregard of family ties,	-	12	-	-	12
Intemperance,	1	1	-	-	2
Licentiousness,	3	-	-	-	3
Dishonesty, or other moral defects, . . .	-	-	-	1	1
Lack of thrift, industry, or judgment, . .	2	2	2	-	6
Physical or mental defects,	1	-	-	-	1
Sickness, accident, or death,	14	-	-	-	14

*Decisions as to Relief—Families Having Four or More Children under 14 Years
Dependent on One Adult.*

DECISIONS AS TO RELIEF.	CLASSIFICATION OF HEADS OF FAMILIES				
	Widows and Women Divorced or Separated (Legally)	Deserted Wives	Widowers	Single Men and Women and Mis- cellaneous	Total
Should have continuous relief (not indoor),* .	6	2	—	—	8
Should have intermittent relief (not indoor), .	2	1	—	—	3
Should have temporary relief (not indoor), .	3	5	—	—	8
Should have transportation from city, . . .	1	—	—	—	1
Should have indoor relief,	2	1	1	—	4
Needing visitation and advice only,	—	2	1	—	3
Needing work—relief if no work is provided,	1	3	—	—	4
Needing work—no relief,	4	—	—	—	4
Needing discipline only,	1	—	—	1	2
Not requiring action,	1	1	—	—	2
TOTALS,	21	15	2	1	39

* Likely to need relief at least *two years*.

These tables in themselves require no analysis, as the principal points contained in them have been previously alluded to in connection with other presentations.

QUARTERLY REVIEW OF EMPLOYMENT AND EARNINGS.

QUARTER ENDING OCTOBER, 1899.

The regular quarterly summary of conditions affecting labor, employment, earnings, and cost of living, in the industrial centres of the Commonwealth, based upon special reports and comparisons made by agents of the Bureau, for the quarter ending October, 1899, follows; the weeks selected for statistical comparisons of persons employed and earnings being those ending June 17 and September 23, respectively.

BOSTON. Conditions in the clothing industry remain practically the same as in the quarter covered by our last report. Seasonal changes affect some of the establishments, but all of them state that as compared with last year an enlarged output is shown. All the establishments covered by our report were running on full time, but only to 75 per cent of aggregate full capacity. Continued advance is reported in the price of raw material, and a slight increase in the selling prices of product. No material changes have taken place in the rates of wages. Collections are reported as fair.

In the manufacture of cooking, lighting, and heating apparatus, a continued improvement is shown, and the selling price of the product has increased about 10 per cent. There has, however, been a steady advance during the quarter in the cost of raw material. Wages remain unchanged. Establishments are running full time, but not to full capacity.

Conditions in the building industry show a marked improvement over the corresponding season in 1898, so far as contemplated operations are concerned. The margin of profit, however, is closer this year than at any time during the preceding 10 years on account of increased competition, and in consequence of the advance in the price of raw materials. This advance is believed by some to have checked building operations in certain directions. Others, however, hold that, as a rule, building operations are always active on a rising market, and that they have not so far been materially checked by the higher cost of stock. Operations during the summer and fall have been principally confined to large steel and iron proof buildings. A large amount of repair work and alterations has, however, been done. Work of this character has been accelerated by the extensive changes in railroad terminals at the southern end of the city. Considering the work of the year up to date, the results are much greater than in 1898, and some observant contractors hold that the aggregate for the season will reach a larger amount than during many years, although possibly, as the individual operations have been on a somewhat larger scale, the number of contracts awarded may not have been as large as in some other years. Western competition in ornamental woodwork and in high-class iron work for building has been seriously felt by some concerns in New England. Indeed, an estimate has been given to our agents to the effect that fully 30 per cent of the former and 50 per cent of the latter has been furnished, in connection with recent contracts, by western manufacturers. In general, more men were employed during the three months covered by the present review than in the quarter which immediately preceded it, although establishments distinctively engaged in manufacturing in connection with the building interest are not running beyond 50 per cent of full capacity. On the whole, rates of wages have not been changed since our last report. Tentative movements looking towards fixing the working hours of carpenters at eight per day instead of nine as at present, compensation to remain unchanged, are being made by the unions. The movement apparently extends to the suburban cities and towns within 10 or 12 miles of the city, and is intended to bring all these places into harmony with the city conditions as to hours and wages. Cost of stock continues to advance, increasing, of course, the risk in contracts. Prices for work are naturally higher under existing circumstances. Collections on work not protected by contract are said to be much improved since our last report, and to be fair at present.

In the brewing industry, the demand for ales and lager beer has in-

creased over that of last year as indicated by conditions obtaining during the summer months ; for although a few brewers report a slight falling off in consumption as compared with last year, others show increased sales. Probably the two seasons, so far as relates to general output, show no material difference. The summer demand is naturally greater than during the spring months or in the fall, although the present conditions seem to be normal, seasonal effects being taken into account. The number of barrels of fermented lager brewed and sold during the quarter ending September 30, 1899, was 540,523, against 517,040 for the quarter ending June 30, showing an increase of 23,483 in the number of barrels. All the breweries are running full time, and to about 75 per cent of full capacity. Wages, being fixed by the Brewers' Unions, have not changed since our last report, although there have been slight reductions in the working force of some of the establishments. The cost of stock is practically the same as during the preceding quarter, except with respect to a few minor articles which show an advance. In the near future, however, it is expected that malt will be higher and hops lower than in 1898. Selling prices remain unchanged. Collections show an improvement over the conditions obtaining a year ago, or last spring.

In the manufacture of temperance drinks, demand, generally speaking, has not been as good this summer as usual, although a slight improvement is noted in some quarters. This is due almost entirely to weather conditions, which have been exceedingly variable. Establishments have been running full time, but only to about one-third or one-half full capacity. Rates of wages have not changed since June, and there has been little change since June in the cost of materials or selling prices. Collections, which were fair during the summer, are now rather poor.

In Printing, Publishing, and Bookbinding, operations have been good all summer, with employment steady and full. Some establishments have had all the business that they could attend to ; others report the best summer business for several years, and, in general, conditions show a decided improvement over the same months in 1898. Demand has slackened somewhat at the close of the present quarter, and some printers are seeking employment. This is considered a temporary condition, however, and in many establishments there has been no diminution of work. The outlook is deemed promising. There is still a strong tendency on the part of consumers to obtain bids before placing orders, which has the effect of preventing an increase in prices. Difficulty is reported in obtaining paper, on account of the curtailment of production by the paper mills by reason of frequent stoppages on account of low water. Business in fine printing has been improving continuously for several months, and in this particular line it is said that Boston will be able within a short time to show the finest and best equipped establishment in the world. The introduction of feeding machines is believed to

have curtailed employment in a measure. As a rule, printing establishments are running full time, and with few exceptions, to full capacity of the plant. Rates of wages are unchanged, although on piece work, owing to the state of employment, earnings have been enlarged. The cost of stock is higher, the advance in some kinds reaching 25 per cent. Prices have also advanced, but the increase barely represents the extra outlay for stock. Collections have improved, and although generally slow during the summer are now fair.

In Metals and Metallic Goods, an increased output and full employment are reported for the quarter. The cost of raw materials has also increased, and the selling price of product has risen in some cases fully 20 per cent, although, as a whole, the average advance may be placed at $12\frac{1}{2}$ per cent. Rates of wages in general remain unchanged, although an advance of about 10 per cent to moulders is reported in two establishments. Nearly all the establishments visited report that they are running full time and to about 75 per cent of full capacity.

In Machines and Machinery, demand still continues to increase. Establishments are running full time and nearly to full capacity. The advance in price of iron and steel is still felt, and although selling prices have increased they are still too low to meet the increased cost of stock and maintain profits. All of the establishments report a scarcity in iron and difficulty in obtaining a sufficient supply. No change is reported in rates of wages. Collections are good.

In Musical Instruments and Materials, especially the manufacture of pianos, business is reported as showing improvement over the quarter covered by our last report, as well as when compared with the corresponding months in 1898. Raw materials have advanced about 20 per cent in price, and it has not been possible for manufacturers to meet this advance by increasing the selling price of product. Rates of wages have advanced in some branches of employment fully 10 per cent. The factories are generally running full time and to about 85 per cent of full capacity. Collections are fair.

Establishments in all industries which reported 6,436 persons on the rolls for the week taken for comparison in the preceding quarter report 6,708 for the selected week in the quarter covered by the present review, an increase of 4.23 per cent. The payroll for these persons, respectively, rose from \$75,228 to \$82,728, a gain of 9.97 per cent.

BROCKTON. The output in the boot and shoe industry has largely increased as compared with the early months of the year. Many establishments report more goods manufactured during the present quarter than during the corresponding season in a number of years. The cost of stock has continued to rise, showing an average increase since June 17 of about 10 per cent, although the selling value of the product has been but slightly advanced. Manufacturers have, therefore, been unable to increase prices sufficiently to meet the increase in the cost

of stock, and a tendency is noted to use cheaper grades of stock. Rates of wages remain unchanged. All the establishments reported upon are running full time, and in many cases to full capacity. Collections are good, and, in general, the indications point to a continuance of activity during the fall and winter.

Reports from identical establishments for the week compared in this and the preceding quarter show an increase of 35.96 per cent in numbers, and 38.71 per cent in the weekly payroll.

CAMBRIDGE. In Metals and Metallic Goods, the demand still continues to increase. Employment is full. Rates of wages remain unchanged. The cost of raw material has sharply advanced, while the selling value of the product has not increased in the same proportion.

In Machines and Machinery, demand is still strong, but the difficulty in obtaining iron, reported in other places, is still seriously hampering manufacturers. Establishments are running full time and nearly to full capacity. The same conditions as to increase in the cost of stock, without a corresponding increase in selling value, are reported here as elsewhere in this industry.

The reports from identical establishments in the two industries, made for the corresponding week in the present and preceding quarters, show a gain of 6.97 per cent in numbers, while the weekly payroll increased 30.07 per cent.

CHICOPEE. In the cotton industry, the demand for canton flannel, sheetings, and shirtings, which was large during the spring months, shows no diminution, and, as compared with the third quarter in 1898, exhibits a marked increase. Generally, in the cotton industry stock and selling prices are higher. Wages have not changed since our last report. Low water has diminished the earnings of piece workers somewhat, as certain departments in the mills have been obliged to stop at times on account of low water, although the looms have usually run full time. Collections are good.

In the woollen knit goods industry, the mills are busy and conditions show a marked improvement over 1898. The outlook is good for continued activity. Manufacturers suggest the need of National labor laws to equalize conditions of employment, especially as to hours, in the different States, and believe that the stricter laws in Massachusetts tend to diminish the output and restrict employment here in this industry. Mills are at present running full time, however, and to full capacity. As they are operated by steam they are not affected by the local conditions as to low water. Wages remain the same as at the date of our last report, but the cost of stock is higher. There has been no change in selling prices since June, as the goods are now being made under contracts determined early in the year.

The number on the rolls in the establishments reporting was, for the week selected for comparison in the quarter under review, 2,916 as

against 3,002 for the corresponding week in the preceding quarter, a decline of 2.86 per cent. The payroll for each week respectively, covering the amounts disbursed to the employes mentioned, was \$17,938 and \$18,057, the decline being less than one per cent.

FALL RIVER. No material change is reported in the cotton industry during the quarter under consideration. The mills are generally running full time and to full capacity. Cotton has advanced slightly in price, and the selling value of cloth has also advanced. Rates of wages remain unchanged. Demand apparently remains as good as during the preceding quarter and shows a great improvement over the corresponding months in 1898. Generally, the conditions for the future are favorable. Collections are reported as fair.

Establishments reporting 3,990 persons on the rolls for the selected week in the preceding quarter, employed 4,161 for the week in the quarter now under review, a gain of 4.29 per cent. The weekly payroll for these numbers, respectively, rose from \$27,462 to \$28,766, an increase of 4.75 per cent.

HAVERHILL. During the quarter under consideration business in the boot and shoe industry has been fully as good as during the previous three months. A decrease in the number of persons employed and in the amount of wages paid, appearing at the close of the quarter, does not indicate any permanent decline in the industry as a whole, but is due to the fact that at the time of the report manufacturers were largely engaged in getting out samples. All indications point to continued activity during the fall and winter. Conditions as to advance in stock and in price of product, reported from other centres of the industry, exist in this city also. Wages are unchanged for the quarter. During the final week of the quarter the factories were not running to more than 65 per cent of full capacity, and some of them on diminished time, on account of seasonal conditions. Manufacturers expect an advance in selling prices. Collections are reported good.

Firms employing 2,836 persons for the selected week in the previous quarter report 2,516 for the corresponding week in the quarter now under consideration, the decline, amounting to 11.28 per cent, being accounted for above. The weekly payroll declined from \$25,985 to \$23,157, or 10.88 per cent.

HOLYOKE. In the paper industry, although the spring trade was unusually large, demand is now equally strong, and shows much improvement over that of the corresponding months in 1898. There are still plenty of advance orders. Low water has been a severe handicap during the entire season, perceptibly lessening production. During the closing week of the quarter under consideration some mills lost 36 hours' time on this account. Establishments depending wholly or partly on steam have escaped this difficulty. The outlook is considered good. With the exception of stoppages on account of low water, establishments are

running full time and to about 80 per cent of full capacity. Wages remain unchanged since our last report. The cost of stock is higher. Selling prices have also advanced, and the tendency is still upward. Collections are good.

In the woollen industry, wages have not changed since June. The cost of stock is higher. In the manufacture of overcoatings and goods for men's wear, advance orders are fully up to the limit of last year, and all establishments report an improvement over the spring demand. Some of the mills have increased their machinery since June, and the general outlook is good. As in the paper industry, low water has slightly interfered with production and curtailed employment. The establishments, with few exceptions, are running on full time and from 80 per cent to full capacity. Collections are good. In the manufacture of blankets, demand is practically uniform, as the mills are working under contract. Excepting the diminution of production due to low water (bringing it down to 80 per cent during the week ending September 23), they are running to full capacity, and as far as possible on full time.

In the cotton industry, the demand for cotton cloth, yarns, warps, and threads has increased as compared with the corresponding months in 1898, and, generally, shows improvement over the spring months. Orders are in excess of the capacity of production, although the output of some of the mills has been reduced on account of low water by about seven per cent on the average. This reduces running time, which during the week ending September 23 was brought to about 55 hours instead of 58, diminishing production for that week from 100 to about 95 per cent of full capacity, and of course curtailing employment and earnings.

The demand for alpaca goods is also better than for the corresponding months last year, and shows improvement since the early months of 1899.

It will be borne in mind that, as stated, diminution in employment occurred near the close of September, owing to lack of power in establishments depending on water.

Establishments reporting 6,466 persons on the rolls for the week taken for comparison in the preceding quarter return 6,543 for the corresponding week in this, an increase of 1.19 per cent. The weekly payroll in these establishments dropped from \$45,695 to \$45,102, a loss of 1.30 per cent. The decline in the weekly payroll is slight and does not indicate the general conditions during the quarter as a whole, when not affected by the cause of stoppage referred to.

LAWRENCE. Reports from the cotton mills show that demand has been fully as good as for the previous quarter. All cotton has advanced in price since June 17 about 12 per cent, varying week by week during the quarter. The selling values of various grades of cloth have slightly increased, print cloth, however, remaining practically steady.

All the mills are running full time, and generally to full capacity. Rates of wages remain unchanged. Collections are fair.

In the worsted and woollen industry, demand has increased as compared with the months covered by our last report. The mills are running full time and to full capacity, and the general prospect is encouraging. Wool has advanced in price, and there has been a slight increase in selling values of cloth, but not commensurate with the advance in price of stock. A further advance is, however, expected. Wages remain unchanged. Collections are good.

The number of persons employed in identical establishments during the week compared in this and the preceding quarter, was, respectively, 17,304 and 17,213, — no material change. The weekly payrolls, respectively, were \$129,874 and \$125,447, a gain of 3.53 per cent.

LOWELL. Conditions in Lowell in the textile industries are substantially the same as those reported from Lawrence.

In Machines and Machinery, there is an increase in production, as well as in the number of persons employed, as compared with the months covered by our previous report. The machine shops are running full time and to full capacity, a condition not known before for many years. There has been no material change in the rate of wages since our last report. The cost of stock has continued to advance, especially iron and steel, and here, as elsewhere, manufacturers report it hard to obtain a requisite supply of raw material. The selling value of the product has also advanced, but not commensurately with the increase in the price of stock. Enlargements of plants are noticed in some establishments. Collections are reported to be good. In the manufacture of bobbins, the output is larger than during the spring months, and has increased as compared with the corresponding months in 1898. The increase in the price of stock in this industry averages 12 per cent. The selling value of the product has advanced 10 per cent. Establishments are running full time and to full capacity. Wages unchanged; collections good.

Establishments reporting 16,982 persons on the rolls for the selected week in the preceding quarter now report, for the corresponding week, 16,808, — substantially the same number; the weekly payrolls for these numbers, respectively, being \$125,074 and \$122,633.

LYNN. In the boot and shoe industry, demand has greatly increased as compared with 1898, or as compared with the early months of the present year. Liberal advance orders are given and quick deliveries are wanted for immediate consumption. There are no large stocks on hand, and jobbers are less critical with respect to quality. It seems to be the general opinion that there is no buying in anticipation of an advance in prices, but strictly for present consumption, and a demand for a better shoe is also noted by manufacturers of the cheaper grades. There is every indication that the present demand will be maintained. Stock of all kinds is hard to obtain in quantities as re-

quired. Prices are firm. Nearly all the establishments are running full time and, with some exceptions, to full capacity. There is no change in the rates of wages since June, but earnings are larger on account of increased employment. The continuous advance in the cost of stock has now been partly offset by an advance in the selling price of product, and a continued advance in selling prices is inevitable as long as the cost of raw material is maintained at the present figures. Collections are good, and even better than usual.

In the morocco industry, especially sheep, goat, and calf, orders are coming in well. Production is up to the level of last year, and in many establishments shows an increase. One manufacturer says, "We are rushed to death; not such a demand for leather in five years." Another says, "Demand shows wonderful improvement over that of last year." The tone of the market is better than in the spring months. Factories are running full time and to full capacity. Wages are somewhat higher in some establishments and unchanged in others. There has been some agitation among employés for an increase in wages, but no marked concessions gained. The cost of raw stock is much increased, and is scarce even at advanced figures. Selling prices are higher. Collections are good.

The number reported on the rolls by identical firms, for the weeks compared in this and the preceding quarter, was, respectively, 2,262 and 2,042, a gain of 10.77 per cent, the weekly payroll rising to \$23,320 from \$20,647, a gain of 12.95 per cent.

NEW BEDFORD. The favorable conditions in the cotton industry previously reported continue.

The cotton spinning mills have generally combined under the name of the New England Cotton Yarn Company. No diminution of production is reported as compared with the previous quarter, and the output is larger than for the corresponding months in 1898. Employment is full. Collections are good.

Establishments reporting 5,612 persons on the rolls for the week taken for comparison in the preceding quarter report 5,713 for the selected week in the quarter under review, a gain of 1.80 per cent. The weekly payrolls in each case, respectively, were \$40,273 and \$40,102.

Peabody. Demand for sheep, goat, and kangaroo calf is reported as being as good as in June, if not better than at that time; and decidedly better than in the corresponding months in 1898. All tanners and finishers are rushing out stock to meet orders that do not have to be solicited. At the close of the quarter there is no finished stock in the market, and manufacturers are well sold out. Indications strongly point to continued activity during the fall and winter. The conditions in the boot and shoe industry oblige manufacturers to use every endeavor to procure stock, and even then they are not always successful in obtaining it. The factories are running full time and to full capacity generally,

although some contract factories are operating from 50 to 75 per cent of their capacity. Wages remain unchanged nominally, but slight concessions in some instances have been granted since June, and on some kinds of work wages are considerably higher than for a number of years. Raw stock of all kinds is higher than in June, but it is difficult to advance the price of finished stock commensurately. Collections are good.

In the fancy morocco industry also, demand has increased, and conditions are generally satisfactory. Factories are running full time, and to about 80 per cent of their capacity. Wages are unchanged; stock higher; selling prices have advanced; collections good.

A marked improvement in demand for heavy upper leather is reported, overcoming the previous inactivity in this particular branch. The product is now sold up pretty closely, and a good future demand is expected. The factories are running full time, but to only about half their capacity. Wages unchanged: stock has advanced, including various materials of manufacture. There has been a marked improvement in the selling price of product, and, in general, the conditions are much more satisfactory than for some months. Collections are good.

In Machines and Machinery, principally leather machinery, continued improvement is to be noted, and the outlook for the future is encouraging. Factories are running full time, and from 50 to 80 per cent of full capacity. Rates of wages are unchanged. The difficulty in getting a sufficient supply of raw material, elsewhere reported in the machinery industry, is noted here, and hampers production. Employment is full, and good workmen are reported in demand and difficult to obtain, particularly moulders. Selling prices in some lines have increased 10 per cent, although the general list shows no advance. Collections are fair.

Firms reporting for the corresponding weeks in the present and the preceding quarter show upon the rolls 1,483 and 1,311 persons, respectively; an increase of 13.12 per cent. The weekly payrolls respectively were \$13,151 and \$12,909, a gain of 1.87 per cent.

WOBURN. Important changes have taken place in the leather industry here, due to consolidations of individual firms, resulting in the closing of some shops and changes in the method of administration of others. The cost of raw material in the industry has increased about five per cent since June, and the selling value of product has also increased. Wages remain unchanged. Collections reported good.

In the manufacture of stiffenings, heels, and inner soles, demand is reported as no better than for the quarter covered by our last report, but manufacturers are anticipating improvement. Rates of wages remain unchanged.

Practically the same number of persons appears on the rolls of the establishments reporting for corresponding weeks in this and the preceding quarter, namely, 1,018 and 1,043. The weekly payroll for the

week selected in the present quarter was \$10,113 as against \$10,152 for the earlier week.

WORCESTER. In Machines and Machinery, and in Metals and Metallic Goods generally, demand has continued active since the beginning of the year. In some lines it is far in advance of the corresponding months in 1898. In establishments devoted to the production of machine tools, manufacturers find it difficult to get the right kind of help in sufficient quantity. Many concerns are advertising for employes unsuccessfully, and foreign orders have been lost for this reason. Other manufacturers, who are supplied with employes, are running to the extreme limit of their plants. All are running full time and, except as limited by inability to obtain workmen, to full capacity. Rates of wages have advanced since June in some cases as much as 10 per cent. The greatest increase is noted in the foundries, among the more expert men. Selling prices have advanced approximately with the increase in wages and the cost of stock.

In the manufacture of water wheels and machinery for the transmission of power, the outlook for the coming year is good. Establishments are running full time and to about 65 per cent of full capacity. Wages are higher in special cases. Cost of stock and selling prices are also higher; collections good.

There is an increased demand for woodworking machinery generally, although it is not felt yet in individual establishments. Establishments are running full time and from 90 per cent to full capacity.

Demand for rolling-mill machinery declined a little during the summer months, but is now fully up to that for the corresponding months in 1898, and the outlook is good for continued activity. Establishments are running full time and to full capacity. Wages have advanced five per cent since June. Stock and selling prices have both advanced, but the higher prices do not apparently retard demand.

Demand for paper box machinery, which has been good during the summer months, dropped off slightly in the fall, but still shows a great improvement over the corresponding months in 1898. Establishments are running full time and to full capacity. Rates of wages are slightly higher. The cost of stock has increased, but selling prices are unchanged. Collections are reported poor in this branch.

In spinning and textile machinery, the most difficulty is experienced in keeping up with the orders, which are several months in advance of the capacity of the manufacturers. The outlook, therefore, is good for future activity. Some concerns are running to full capacity; others from 25 to 90 per cent of full capacity. Wages in general have not changed, but slight advances have been made in a few instances. The cost of stock is higher than in 1898, and steadily advancing. Selling prices also have advanced. Collections are good.

In wool-carding machinery no improvement is noted over conditions which have obtained during several years, and the manufacture of woollen machinery generally does not show the activity reported in other lines. Establishments are running full time, but far below full capacity. Wages remain as in June; the cost of stock is higher; collections are fair.

There is a much better demand for boiler work than during the fall of 1898 or during the spring. It is impossible to get stock, especially iron, in sufficient quantities to meet orders. The outlook is promising for continued activity for at least a year. The selling prices of product are the highest in years, and the establishments are running full time and to full capacity. Wages have advanced during 1899, and the cost of stock has also increased.

Firms manufacturing machine knives report uniform demand during the summer and fall, and that conditions are somewhat better than during the corresponding months in 1898. The establishments are running full time, and to about 85 per cent of full capacity. Stock is higher, but wages and selling prices remain unchanged. Collections are good.

In the manufacture of shears for machinery, demand shows no improvement over the corresponding season in 1898, and is not quite as good as in the spring. A brisk future demand is expected, however.

In the manufacture of machine screws, the activity for the year is said to be the greatest ever known, and bids fair to continue. There are no immediate indications of a decrease in orders. Establishments are running full time and to full capacity in most cases. No change is reported in wages, but the cost of stock and the selling price of product have both advanced. Collections are excellent.

In the brass and bronze factories and establishments devoted to malleable iron products, great activity is reported during the summer, and still continues. Establishments are running full time, and except the malleable iron works, to full capacity. Production in the latter is restricted to 75 per cent of full capacity, chiefly through inability to obtain workmen. In the brass foundries, wages have been increased 25 cents per man per day throughout, and slight individual advances have been noted in other branches. The cost of stock and selling price of product continue to increase. Collections are reported slow.

Great improvement is noted in the wire and wire rope industry, the activity constantly increasing since the opening of the year. The scarcity of raw material, elsewhere noted, is here seriously felt also. Establishments are running full time and to full capacity. Wages are unchanged, but the cost of stock and the selling price of product have advanced since June. Collections are good.

In the manufacture of wire goods, manufacturers anticipate a restriction in demand, as, in their opinion, customers have been accumulating stocks during the year. Factories are running full time and from 80 per cent to full capacity. There has been no general advance in wages since

June, but individual increases are noted. Cost of stock and selling prices have both advanced. Collections have been generally good, but at the close of the quarter are reported slow.

In the building industry, although there is much activity, the margins for profit are narrow. Establishments are generally running full time and to about 90 per cent of full capacity. Wages remain about the same as in June. The cost of stock has increased, and builders have advanced their prices correspondingly.

In woollen goods, especially satinets, demand is no better than in the corresponding months of 1898. The outlook, however, is encouraging. The cloth market was over-bought two years ago. This, and the close competition in cheap woollens, have somewhat restricted the market for satinets. At the close of the quarter the mills are running full time and to full capacity. Wages are unchanged; stock higher; no advance in selling prices; collections are good.

Comparing identical establishments in the various industries for corresponding weeks in the preceding quarter and the one now under review, we note an increase in number employed from 6,854 to 7,355, or 7.31 per cent; the weekly payroll rising from \$70,240 to \$81,020, or 15.35 per cent.

To summarize, the reports by industries indicate a decline in the number of persons employed during the week selected for comparison in the quarter under review, as compared with the corresponding week in the preceding quarter, in the following industries: Clothing; Cotton Goods; Liquors and Beverages (not spirituous); Liquors: Malt, Distilled, and Fermented; Paper; Printing, Publishing, and Bookbinding; Woollen Goods; also in Soles, Heels, and Cut Stock, a subsidiary branch of the boot and shoe industry. In some of the industries cited, notably Cotton Goods, the decline is so slight as to warrant the statement that conditions as to employment in both weeks were practically identical. The following industries show an increase in the number employed, the comparison turning as before on corresponding weeks in each quarter: Boots and Shoes; Building; Leather; Machines and Machinery; Metals and Metallic Goods; Musical Instruments and Materials; Print Works, Dye Works, and Bleacheries (slightly); Worsted Goods. No change appears in Cooking, Lighting, and Heating Apparatus.

The weekly payrolls declined in Clothing; Cotton Goods (slightly); Liquors and Beverages (not spirituous); Liquors: Malt, Distilled, and Fermented; Paper; Printing, Publishing, and Bookbinding; Woollen Goods.

Frequently the weeks selected do not fairly indicate the general conditions obtaining in the industry, for reasons which sometimes appear in our detailed review.

In the aggregate, establishments which were canvassed in the different industries named show a gain in the comparison of persons employed from 74,901 to 76,185, or 1.71 per cent; the weekly payrolls for these persons, respectively, rising from \$609,430 to \$634,560, a gain of 4.12 per cent. Previous reports indicate that notwithstanding fluctuations in employment, and decreases from time to time in some industries and certain places, if the industries are considered in the aggregate the gain in employment and earnings has been continuous since January of the present year.

By cities, a comparison of the final week in the quarter now under review and the corresponding week in the preceding quarter shows a larger number employed in Boston, Brockton, Cambridge, Fall River, Holyoke, Lawrence, Lynn, New Bedford, Peabody, and Worcester; and diminished employment in Chicopee, Haverhill, Lowell, and Woburn. The weekly payrolls for the persons reported show a decline in Chicopee, Haverhill, Holyoke, Lowell, New Bedford, and Woburn, and an increase elsewhere.

We have included in the reports from various cities the general statement that the price of metals used in Machines and Machinery and Metals and Metallic Goods has shown a marked advance.

The following table compares standard quotations for leading metals September 26, 1898 and September 28, 1899 : *

METALS.	WHOLESALE PRICES, PER CWT. —	
	Sept. 26, 1898	Sept. 28, 1899
Copper, New York	\$12.35	\$18.50
Tin, New York	16.15	33.12½
Tin plate, Domestic, Bessemer, f. o. b. mill	2.70	4.65
Foundry pig iron No. 2, Standard, Philadelphia	11.00	22.25
Foundry pig iron No. 2, Southern	10.25	20.25
Foundry pig No. 2, local, Chicago	11.75	21.50
Bessemer pig, Pittsburg	10.75	23.25
Gray forge iron, Pittsburg	9.75	20.50
Lake Superior charcoal iron, Chicago	12.50	23.50
Steel billets, Pittsburg	16.00	38.00
Steel billets, Philadelphia	18.00	40.50
Steel billets, Chicago	17.50	41.00
Wire rods, Pittsburg	22.50	45.00

The quotations in the above table indicate a general advance, approximating 100 per cent, during the year.

Cost of Living. The following table gives the retail prices of certain standard articles of food in Boston, month by month, for the three months ending September 30. The quotations from other cities are in some cases lower and in others higher, but on the average do not materially vary from these figures.

* From "The American Metal Market," New York.

At the beginning of the quarter lamb was unusually high and still remains so for some grades, although lower for others. Beef has shown a marked advance, with no apparent indication of a return to a lower level. Dealers report that this has led to a curtailment of consumption. The prices of pork products have remained steady throughout the quarter, with the exception of bacon, which is quoted higher at the close than at the beginning. Fish is plenty and prices unchanged. Butter of all grades is higher. Eggs are higher and fresh eggs scarce. Potatoes and some grades of apples are cheaper at the close of the quarter than at the beginning, and various kinds of vegetables and fruits proper to the season have been fairly abundant and not unusually high in price.

Retail Prices, Standard Articles, Boston Market, 1899.

ARTICLES.	June 30	August 1	September 1	September 30
Beef, lb. sirloin steak . . . . .	.25 @ .28	.25 @ .28	.30	.30
rump steak . . . . .	.28 @ .30	.28 @ .30	.30	.30
rib roast . . . . .	.12 @ .20	.12 @ .20	.14 @ .22	.14 @ .23
chucks . . . . .	.08 @ .12	.08 @ .12	.10 @ .12	.10 @ .12
corned, fancy brisket . . . . .	.10	.12	.12	.14
corned, ordinary . . . . .	.06 @ .10	.08 @ .10	.08 @ .10	.08 @ .11
Lamb, lb. hind quarter . . . . .	.15	.18	.15 @ .17	.15
fore quarter . . . . .	.09	.10	.10	.10
side . . . . .	.20	.15 @ .16	.14	.12½
short chops . . . . .	.25	.25	.25	.25
Mutton, lb. hind quarter . . . . .	.12	.14	.12½	.12½
fore quarter . . . . .	.07	.07	.08	.07
whole . . . . .	.10	.10 @ .11	.09 @ .11	.08 @ .09
short chops . . . . .	.25	.20	.25	.25
Tripe, lb. . . . .	.08	.08	.08	.08
Ham, lb. . . . .	.11 @ .12	.13	.12	.12
Bacon, lb. . . . .	.10	.11	.11	.12
Pork, lb. fresh . . . . .	.09 @ .10	.11 @ .12	.11 @ .12	.12
salt . . . . .	.08	.09	.08	.08
corned shoulder . . . . .	.07	.09	.09	.08
smoked shoulder . . . . .	.08	.09	.09	.08
smoked rib . . . . .	.08	.08	.08	.08
pigs' feet . . . . .	.08	.08	.08	.08
Sausages, lb. ordinary . . . . .	.10	.10	.10	.10
Bologna . . . . .	.10	.10	.10	.10
Frankfort . . . . .	.10	.10	.10	.10
Lard, lb. . . . .	.08	.08	.08	.08
Butter, lb. best creamery . . . . .	.23	.23	.25	.30
good creamery . . . . .	.20	.20	.22	.28
dairy . . . . .	.18	.18	.20	.25
Cheese, lb. best domestic . . . . .	.15	.15	.15	.16
ordinary . . . . .	.12	.12	.12	.14
Eggs, dozen, fresh . . . . .	.18	.20	.20	.22
case . . . . .	.20	.22	.22	.30
suburban . . . . .	.22	.25	.25	.35
Fish, lb. cod, fresh . . . . .	.08	.08	.08	.08
cod, salt . . . . .	.10	.10	.10	.10
haddock . . . . .	.08	.08	.08	.08
halibut, fresh . . . . .	.25	.20	.25	.25
halibut, smoked20	.20	.20	.20

Retail Prices, Standard Articles, Boston Market, 1899 — Concluded.

ARTICLES.	June 30	August 1	September 1	September 30
Lobsters, lb. boiled . . . . .	.22	.22	.22	.22
Clams, qt. . . . .	.20	.20	.20	.20
Turkey, lb. medium quality . . . . .	.20	.20	.20 @ .30	.20 @ .25
Chickens, lb. native . . . . .	.30 @ .38	.30 @ .35	-	.20 @ .22
good . . . . .	.20 @ .25	.20 @ .25	.22 @ .25	.20 @ .25
Fowl, lb. . . . .	.15	.15 @ .17	.15 @ .17	.15 @ .17
Geese, lb. . . . .	.30*	.23	.20	.20
Ducks, lb. . . . .	.20 @ .22	.20	.20	.18 @ .20
Potatoes, pk. white . . . . .	.40	.35	.25	.25
Onions, qt. . . . .	.05	.05	.10	.08
Cabbage, head . . . . .	.10	.10	.08 @ .12	.10
Apples, pk. . . . .	.60	.50	.35 @ .75	.50 @ .75

* Green Geese.



